Integrated HIV Prevention and Care Plan

Alabama Department of Public Health
Sept. 2016

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SECTION I: Statewide Coordinated Statement of Need/Needs Assessment

INTRODUCTION

The purpose of the *Statewide Coordinated Statement of Need (SCSN)* is to provide a collaborative mechanism to identify and address significant HIV care issues related to the needs of people living with HIV (PLWH/As); and to streamline coordination, integration and effective linkage across Ryan White (RW) funding parts. Goals outlined in the SCSN are used to: (1) set clear goals and objectives for collaborative planning (2) develop an implementation plan (3) information sharing (3) allow cross representation on Prevention and Care Planning and (4) implement Needs Assessment activities.

The SCSN is to identify broad goals and critical gaps in life extending care needed by people living with HIV (PLWH/As) including those what are in-care or out-of-care. The Integrated SCSN/Needs Assessment will describe the process used to develop a collaborative and coordinated needs assessment that will result in greater alignment and access to HIV prevention, care, and treatment services. The goals of the needs assessment process are to: (1) identify and describe HIV prevention and care services that currently exist and those that are needed; (2) enhance the quality of services for persons at higher risk for HIV and PLWH, based on stakeholder feedback; and (3) identify barriers that impede access to existing services. Needs assessments determine needs for specific populations, such as:

- PLWH who know their HIV status, but are not in care;
- Persons at higher risk for HIV infections;
- Disparities in access to care for certain populations and underserved groups; and
- Coordination among HIV Prevention, care, and treatment programs, as well as other necessary services (e.g. substance abuse, mental health, housing, etc.)

PARTICIPATION IN THE DEVELOPMENT OF THE SCSN

According to Section 2602(b)(4)(F), Ryan White HIV/AIDS Part A Grantees must participate in the development of need initiated by the State public health agency responsible for administering grants under Part B. The SCSN involves a meeting that is convened by the State and includes RWHAP grantees from all Parts as well as PLWH, providers, and public health agency representatives.

To meet HRSA requirements, HIV Division staff made every effort to include multiple participants and resources in the updating process to ensure the collection of significant data and diverse viewpoints to provide an informative and comprehensive overview of HIV care and service needs and gaps in services in Alabama.

Acknowledgements

194 HIV Consumers participated in the 2015 HIV/AIDS Needs Assessment
Peer Linkage Specialist serving through the Minority AIDS Initiative (MAI grant)
Alabama's Consumer Advisory Board (ACAB) Representatives
RW Part C and D funded clinic Representatives
RW Part B funded clinics and AIDS Service Organization (ASO) Representatives

Medical AIDS Outreach
AIDS Alabama Hispanic Support Group
The University of Alabama at Birmingham (UAB) School of Public Health
La Clinica Cristiana

Professionals from other state agencies offered valuable data in their comprehensive plans and publications referenced in Alabama's 2016 SCSN and the Needs Assessment documents to describe the State's diverse population, varied socio-economic backgrounds; and specific care and service needs included:

The State Tuberculosis Division
The State Sexually Transmitted Infections Division
The State Immunization/Hepatitis Division
The Bureau of Health Promotion and Chronic Disease
Alabama Department of Public Health area and county health departments
The Division of HIV Prevention and Care staff actively participated in the updating process included:
The STI Surveillance Branch
The Training and Information Branch
The Direct Care Branch
The Prevention Branch
The Peer Linkage Specialist

DEVELOPMENT OF THE STATEWIDE COORDINATED STATEMENT OF NEED

In coordination with the ADPH Division of HIV Prevention and Care, the UAB School of Public Health project team will conduct a series of focus groups and surveys to inform the prevention and care service needs of PLWH and persons at risk for HIV, the service gaps identified by PLWH and persons at risk for HIV, and barriers to prevention and care services. The following methods will be used:

- Developing and conducting a statewide electronic survey that will reach prevention and direct care staff including physicians, nurses, social workers, case managers, and others working in direct patient care.
- Conducting focus groups in conjunction with the Prevention and Direct Care Collaborative Meeting.
- Conducting focus groups with HIV support groups in selected public health areas.
- Conducing focus groups with selected CBO's support groups; for example Project Elite, Latino support groups, and Alabama CAB; in the Birmingham and Montgomery areas.
- Work with UAB's 1917 Clinics, Prevention Initiative to collect information from persons at risk for HIV.

NEEDS ASSESSMENT

In its effort to develop Integrated HIV Prevention and Care Plan for the state of Alabama for 2017-2021, the Alabama Department of Public Health (ADPH) contracted the UAB School of Public Health to conduct a series of surveys to identify needs, gaps, and barriers to HIV/AIDS prevention and care services. Three surveys were developed and administered to three stakeholder groups: (1) Individuals living with HIV/AIDS, (2) Higher-risk, HIV negative individuals, (3) Direct Care Providers. Surveys for individuals living with HIV/AIDS and higher-risk, HIV negative individuals were distributed in paper/pencil formats and translated into Spanish; direct care providers received electronic surveys. All three surveys were piloted with the Alabama HIV Prevention & Care Collaboration Forum in November 2015. Comments and written feedback were instrumental in designing surveys that were content-specific and culturally sensitive to their intended recipients. The following summaries represent overviews of survey results for each respondent group. (Appendix A).

A. EPIDEMIOLOGIC OVERVIEW

More than one point two million (1,200,000) people in the United States are living with HIV infection. The Centers for Disease Control and Prevention (CDC) estimate that 1 in 8 of these people is unaware of their infection. Between 1982 and 2015, a total of 19,838 cases of HIV infection were reported to the Alabama Department of Public Health (ADPH). At the end of 2015, 66 percent (13,148) were known to be living. An additional 2,500 Alabama residents are likely infected and unaware of their positive HIV status. During 2014, 681 newly diagnosed HIV infections were reported in Alabama. The HIV epidemic in Alabama is classified as one of moderate magnitude when compared to the experience of other states.

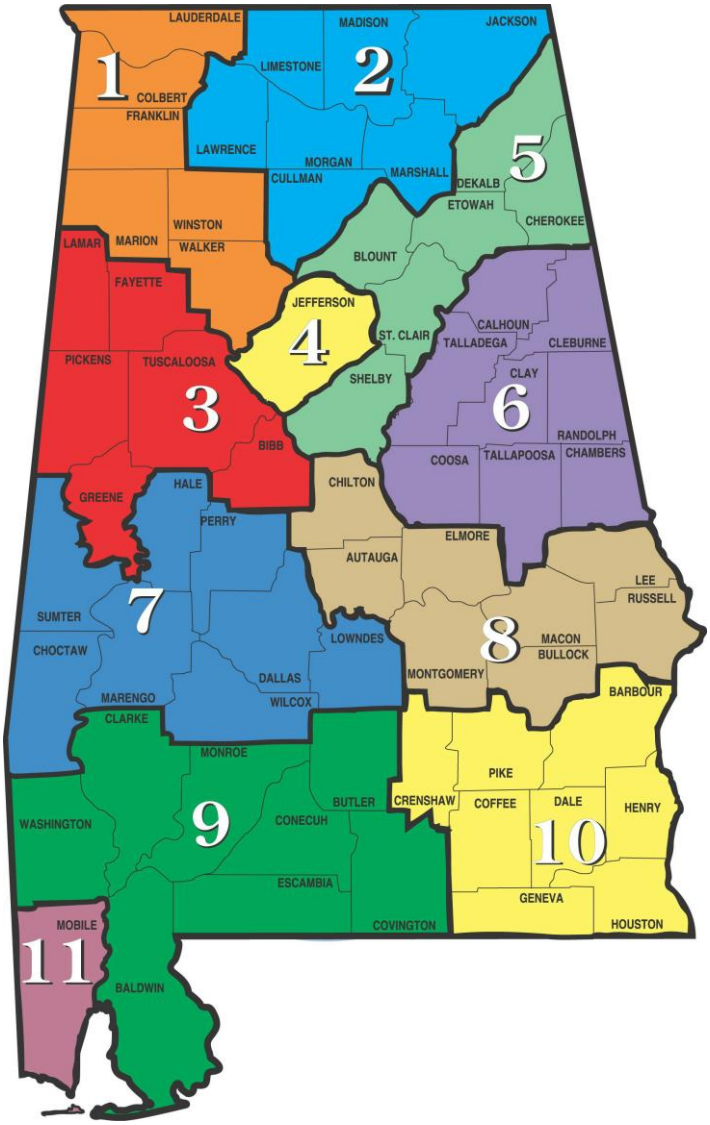
According to the 2015 U.S. Census estimates, the United States Census Bureau reported 4,858,979 persons reside in Alabama. The majority of residents (62 percent) were between the ages of 18 and 54 years, 24 percent were younger than 18 years, and 14 percent were 65 or older (median age = 37.8). The largest number of newly diagnosed HIV infections in Alabama occurred among teenagers and young adults aged 13 to 39 years during 2014, with 72 percent of new diagnoses occurring in this age group. In contrast, the majority of persons living with HIV infection (i.e., prevalent cases) were 30 years or older during 2015 (67 percent of prevalent cases are ≥40 years). Males accounted for three-quarters (72.6 percent) of newly diagnosed cases in 2014, with African American males representing about half (52 percent) of all new HIV infections. White males represented another 23.5 percent of 2014 newly diagnosed HIV infections.

New infections are disproportionately occurring in Alabama's African American population. Although African Americans comprised only 27 percent of the state's population in 2014, they represented 70.7 percent of newly diagnosed HIV infections. The rate of HIV diagnosed among African Americans (70.6 per 100,000) was more than three times higher than among Whites (23.5 per 100,000). The rate of newly diagnosed HIV infections in African American males (65.0 per 100,000) was more than seven times higher than White males (8.5 per 100,000). Seventy percent of males diagnosed with HIV in 2014 were African American. A similar trend was seen among females, with 73 percent of new diagnoses in females occurring in African Americans. The rate of newly diagnosed HIV infections in African American females (13.8 per 100,000) was eight times higher than White females (1.6 per 100,000) and twice the rate among White males.

Alabama's population can be divided into 3 geographical groupings: major urban centers (>200,000 population), minor urban centers (100,000-200,000 population), and rural areas (<100,000 population). Major urban centers include Jefferson, Madison, Mobile, and Montgomery Counties. In 2010, these major urban centers represented 34 percent (1,635,632) of the state's total population and 61 percent (10,597) of cumulative HIV cases reported to ADPH. Minor urban centers include eight counties and comprised 24 percent (1,156,292) of the state's population and 14 percent (2437) of cumulative HIV cases. Rural areas accounted for 25 percent (4256) of cumulative HIV cases. Alabama is considered

primarily rural with 55 of the 67 counties located outside of the state's major and minor urban population centers (Figure 1).

Figure 1. Alabama Public Health Area Map



Source: Alabama Department of Public Health

Following the 2010 census, Alabama ranked 42nd nationally in per capita income with 23 percent of the population living in poverty. Alabama's agricultural Black Belt region (Bullock, Butler, Choctaw, Crenshaw, Dallas, Greene, Hale, Lowndes, Macon, Marengo, Perry, Pickens, Sumter, and Wilcox counties) has the highest poverty and unemployment rates in the state. Strikingly, the region also encounters disproportionately high rates of HIV infection. Though only representing five percent of Alabama's total population, the rate of newly diagnosed HIV infections in the Black Belt region was 22.0 per 100,000 residents in 2014. Statewide, the rate of new diagnoses per 100,000 persons was highest in Bullock (111.5), Greene (70.2), Hale (46.1), Dale (44.5), and Montgomery (40.5.7) counties.

HIV clinics and service organizations apply to ADPH for Ryan White funding to provide defined core service priorities and support services, with appropriate justification based on United States Health Resources and Services Administration (HRSA) guidelines. Funding decisions are made using a formula based on Alabama's current service utilization, unmet need, and data provided in the HIV Integrated Epidemiologic Profile. Social workers, case managers and clinicians employed in Ryan White funded HIV clinics and service organizations are responsible for coordinating direct care and service delivery. The majority of HIV care providers and services are located in Alabama's major urban centers. However, alternate care and services are offered at satellite clinics located in many rural areas across the state.

The HIV epidemic affects persons in all gender, age, race, ethnicity, and socioeconomic groups in every county in Alabama. However, the effect has not been the same for all groups. Recent trends suggest a shift in the HIV epidemic toward African Americans and high-risk heterosexual activity. With the number of deaths among people diagnosed with HIV continuing to decline and the number of people living with HIV continuing to increase, the importance of identifying populations most affected and at risk for HIV infection is paramount. Alabama must be diligent in planning effective HIV prevention and care efforts with the allocation of limited resources.

INTRODUCTION

The HIV Integrated Epidemiologic Profile provides information about the current HIV epidemic in Alabama. This profile describes the socio-demographic, economic, and geographic characteristics of people living with HIV and at risk for HIV infection in Alabama. The profile is a resource for guiding prevention and intervention strategies as well as service delivery efforts. The profile is also utilized to justify and obtain funding for the implementation of prevention and service programs and to improve and evaluate HIV-related programs and policies in Alabama.

The profile is divided into four key sections:

I. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE GENERAL POPULATION
II. SCOPE OF THE HIV EPIDEMIC
III. INDICATORS OF RISK FOR HIV INFECTION
IV. PATTERNS OF UTILIZATION OF HIV SERVICES

I. SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE GENERAL POPULATION

A. HIGHLIGHTS

Population

The U.S. Census Bureau estimated 4,858,979 persons resided in Alabama in 2015. Alabama is composed of 67 counties, ranging in population from (Greene County) 8,489 to 660,367 (Jefferson County). Alabama is considered largely rural with 55 of 67 counties having a population < 100,000. However, Alabama does have four major urban centers located in Jefferson, Madison, Montgomery and Mobile Counties and one large metropolitan statistical area that represents 24 percent (1,145 ,647) of Alabama's total population and includes seven adjacent counties (Bibb, Blount, Chilton, Jefferson, St. Clair, Shelby and Walker Counties).

Public Health Structure

Alabama is divided into eleven geographically distinct public health areas (PHAs) with the two most populous counties representing single PHAs (Figure 1). The remaining PHAs encompass six to eight counties each. Seven of Alabama's 19 Black Belt counties comprise PHA 7. Each area has authority to provide core public health services to the community including HIV counseling and testing, sexually transmitted disease (STD) screening and treatment, maternal and child health, vaccine preventable immunizations, family planning, home health services, and adult health clinics.

Demographic Composition

The 2016 U.S. Census Bureau estimates 70 percent of Alabama residents are White, not Hispanic (Table 1). Non-Hispanic African Americans compose about one-quarter (27 percent) of the population in Alabama. The remainder of the population identified themselves as Hispanic (3 percent), Asian (1 percent), or Native American (<1 percent). The racial and ethnic distribution is the same when assessed by gender.

Table 1. Population Distribution by Race/Ethnicity and Sex, Alabama 2015

	Males		Females		Total Population	
Race/Ethnicity	**N=2,353,184**	**%**	**N=2,505,795**	**%**	**N=4,858,979**	**%**
White, not Hispanic	1,566,353	66.6%	1,638,230,	65.4%	3,204,583	66.0%
African American, not Hispanic	598,062	25.4%	687,195	27.4%	1,285,257	26.5%
Hispanic	109,230	4.6%	36,268	1.4%	145,498	3.0%
Native American	13,308	0.6%	13,803	0.6%	27,111	0.6%
Asian	30,689	1.3%	35,031	1.4%	65,720	1.4%

Source: 2015 United States Census Bureau.
Note: Percentages may not sum 100% due to rounding.

Approximately one-half (53 percent) of Alabama residents are between the ages of 25 and 64 years (Table 2). Twenty-six percent are 25 to 44 years and 27 percent are 45 to 64 years. One-third of residents (34 percent) are younger than 25 years with 15 to 24 year olds representing 14 percent, 5 to 14 years old representing 13 percent, and children less than 5 years old representing six percent. The

remainder of Alabama residents is age 65 years or older (14 percent). The female to male ratio in Alabama is 1:1.

Table 2. Population Distribution by Age Group and Sex, Alabama 2015

	Males		Females		Total Population	
Age Group (years)	**N=2,353,184**	**%**	**N=2,505,795**	**%**	**N=4,858,979**	**%**
<5	149,108	6.3%	143,865	5.7%	292,973	6.0%
5-14	313,832	13.3%	302,169	12.1%	616,001	12.7%
15-24	334,890	14.2%	328,292	13.1%	663,182	13.6%
25-44	604,533	25.4%	630,689	25.2%	1,235,222	25.4%
45-64	619,398	26.3%	668,041	26.7%	1,287,439	26.4%
≥65	331,423	14.1%	432,739	17.3%	764,162	15.7%

Source: 2015 United States Census Bureau.
Note: Percentages may not sum 100% due to rounding.

Poverty, Income, and Education

According to the 2016 Alabama Poverty Data Sheet, Alabama is the fourth most poverty stricken state in the nation. Nineteen percent of individuals residing in Alabama live below the federal poverty level (Table 3). Another 15 percent of all families and 45 percent of families with a female head of household and no husband present have incomes below the poverty level. One-quarter (25 percent) of children less than 18 years, 16 percent of adults aged 18 to 64 years, and 10 percent of the elderly aged 65 years and older live below the federal poverty level. Average personal income in Alabama is $23,936 and the median household income is $43,511.

Table 3. Socioeconomic Characteristics of Population, Alabama and United States 2015

Characteristic	Alabama	United States
Income		
Average Per Capita Income	$23,936	$27,334
Median Household Income	$43,511	$53,657
Federal Poverty Level		
Individuals	18.9 %	15.6%
Families	15.4%	11.7%
Female HOH†, no husband present	45.1%	42.2%
Federal Poverty Level by Age Group (years)		
<18	24.8%	21.8%
18-64	15.9%	13.7%
≥65	10.3%	9.1%

Source: 2010 Current Population Survey, United States Census Bureau.
Note: Percentages may not sum 100% due to rounding. †HOH – Head of Household

The latest educational data is from the 2010 U.S. Census. The most common level of education attained in Alabama among people aged 25 years and older is a high school diploma or its equivalent (30 percent), according to 2010 U.S. Census reports (Table 4). While 21 percent of Alabama residents age 25 years and older report some college experience, only 19 percent successfully obtain a bachelor's degree or higher. One-quarter (25 percent) of residents age 25 years and older fail to graduate high school with 6 percent reporting less than a ninth grade education. Assessing Alabama's four most populous counties (Jefferson, Madison, Mobile, and Montgomery Counties), with populations ranging

from 229,363 in Montgomery County to 658,466 in Jefferson County, shows roughly the same education distribution.

Table 4. Educational Attainment (Age ≥25 Years) for Counties of >200,000 Population, Alabama 2010

Education	Jefferson N=658,466	Madison N=334,811	Mobile N=412,992	Montgomery N=229,363	Alabama N=4,779,736
High School Diploma or Equivalent	28.1%	22.2%	34.3%	27.5%	30.4%
Some College	22.7%	21.5%	20.9%	21.1%	20.5%
Associate's Degree	7.0%	6.7%	7.3%	5.5%	5.4%
Bachelor's Degree	18.1%	23.9%	13.1%	18.2%	12.2%
Graduate or Professional Degree	10.7%	13.5%	6.7%	12.3%	6.9%

Source: 2010 Site and County Quick facts for Alabama, United States Census Bureau.
Note: Percentages may not sum 100% due to rounding.

B. DEMOGRAPHICS

The 2015 U.S. Census Bureau estimates the population of Alabama is 4,858,979 persons (Table 1). The female to male ratio is 1:1 and the majority of the population between 25 and 64 years old (53 percent). The proportion of women age 65 years or older was significantly higher than that of their male counterparts (58 percent to 42 percent, respectively). The 2000 U.S. Census expanded the collection of race and ethnicity information to allow persons the opportunity to report belonging to more than one race, as well as to report Hispanic ethnicity. Despite this expansion, 70 percent of Alabama's population reported themselves as White, not Hispanic during the 2010 U.S. Census (Table 1). African Americans comprised 27 percent of the population while Hispanics, Native Americans, and Asians constituting four percent of the total population.

Alabama is divided into eleven PHAs for the purpose of public health planning and disease intervention (Table 5). PHA 2 has the largest combined population with 826,581 residents while PHA 4 (Jefferson County) has the second largest population with 660,367 residents (Table 5). PHA 7 has the smallest population with only 133,669 residents and is part of the agricultural Black Belt region. PHA 7 has the lowest percentage of White residents (35 percent) and the highest percentage of African American residents (63 percent) in Alabama. Statewide, the number of persons reported as White ranges from 35 percent in PHA 7 to 87 percent in PHA 1. Alabama's African American population ranges from only eight percent in PHA 1 to 63 percent, in PHA 7. Hispanics comprise between four percent of Alabama's population (range 1 percent in PHA 7 – 6 percent in PHA 5).

Table 5. Population Distribution by Race/Ethnicity and Public Health Area, Alabama 2015

PHA†	White	%	Black	%	Hispanic	%	Other	%	Total	%
PHA 1	253,902	86.5	25,110	8.4	11,957	4.0	7,016	2.4	297,985	6.1
PHA 2	616,821	75.6	121,277	14.7	50,206	6.1	38,277	4.6	826,581	17.0
PHA 3	183,602	64.0	87,083	30.4	8,888	3.1	6,974	2.4	286,547	6.0
PHA 4	333,919	50.6	281,887	42.7	25,040	3.8	19,521	3.0	660,367	13.6
PHA 5	449,790	81.2	53,458	9.7	33,608	6.1	16,650	3.0	553,506	11.4
PHA 6	231,086	69.3	84,904	25.5	9,444	2.8	8,008	2.4	333,442	6.9
PHA 7	46,279	34.6	83,983	62.8	1,704	1.3	1,703	1.3	133,669	2.8
PHA 8	358,139	54.8	245,237	37.5	25,272	3.9	25,083	3.8	653,731	13.5
PHA 9	276,050	73.5	74,607	19.9	11,963	3.2	12,691	3.4	375,311	7.7
PHA 10	215,859	66.9	81,298	25.2	13,731	4.3	11,557	3.6	322,445	6.6
PHA 11	239,136	57.6	142,272	35.2	11,482	2.8	18,334	4.4	415,395	8.5
Total	3,204,583	66.0	1,281,116	26.5	203,325	4.2	165,814	3.4	4,858,979	100

Source: 2015 U.S. Census Estimates and Auburn University at Montgomery Center for Demographic Research.
Note: Percentages may not sum 100% due to rounding. †PHA-Public Health Area

According to 2010 U.S. Census statistics, the distribution of race/ethnicity varies in Alabama's four major urban centers, defined as counties with populations >200,000 (Table 6). In Madison County, 66 percent of the population reported themselves as White, not Hispanic, compared with 59 percent in Mobile County, 52 percent in Jefferson County, and 38 percent in Montgomery County. Montgomery County reports the highest percent of African American, not Hispanics (55 percent), followed by Jefferson County (42 percent), Mobile County (35 percent), and Madison County (24 percent). Madison County reports the highest Hispanic population (5 percent).

Table 6. Population Distribution by Race/Ethnicity for Counties of >200,000 Population, Alabama 2010

Race/Ethnicity	Jefferson N=658,466	Madison N=334,811	Mobile N=412,992	Montgomery N=229,363	Alabama N=4,779,736
White, not Hispanic	51.7%	66.1%	59.1%	38.4%	67.0%
Black, not Hispanic	41.8%	23.8%	34.5%	54.5%	20.7%
Hispanic	3.9%	4.6%	2.4%	3.6%	3.9%
Other	1.7%	5.5%	4.1%	3.5%	3.0%

Source: 2011 Auburn University at Montgomery Center for Demographic Research.
Note: Percentages may not sum 100% due to rounding.

C. SOCIOECONOMIC STATUS

Alabama is the tenth most poverty stricken state in the nation with 17 percent of Alabama residents living below the federal poverty level (Table 7). In 2008, the rate of Alabamians living below poverty level decreased with age, with the highest proportion of persons living below the poverty level being less than 25 years old and the lowest proportion being 65 or older (Table 7). Analyses of Alabama's four most populous counties mirror this trend with Mobile and Montgomery Counties displaying the highest poverty rates in persons less than 25 years. In each of the four most populous counties and statewide, more women than men live below federal poverty level in all age groups.

Table 7. Rate of People Living Below Poverty Level by Age Group and Sex for Counties of >200,000 Population, Alabama 2008

Age Group	Jefferson		Madison		Mobile		Montgomery		Alabama	
(years)	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<25	6.6	6.4	6.4	5.3	8.7	10.4	8.7	10.0	7.4	7.7
25-44	2.0	3.7	2.3	2.4	3.4	5.4	1.9	4.3	2.8	4.3
45-64	2.3	2.9	1.2	1.8	2.8	3.8	2.7	3.6	2.4	3.3
≥65	0.8	1.8	0.2	1.1	0.9	1.9	0.9	2.1	0.9	2.3

Source: 2008 American Community Survey Estimates, United States Census Bureau.
Note: Rate per 100,000 persons.

A 2008 population survey found 18 percent of males and 16 percent of females aged 19-24 years in Alabama did not have health insurance coverage (Table 8). Of those insured, two-thirds (66 percent of men and 68 percent of women) received health insurance coverage through their employer. Four percent of men and women purchased individual health insurance plans while 8 percent of men and women are insured by Medicaid and Medicare. Another 4 percent of men and women receive other public health insurance. State percentages of health insurance coverage status were similar to the national average.

Table 8. Distribution of Adults (Aged 19-64 years) by Health Insurance Coverage and Sex, Alabama 2014, United States 2014

Health Insurance Coverage	Alabama		United States	
	Males	Females	Males	Females
Employer	57%	57%	59%	59%
Individual	8%	8%	8%	8%
Medicaid/Medicare	10%	13%	13%	16%
Other Public	8%	7%	5%	4%
Uninsured	18%	14%	16%	13%

Source: Kaiser Family Foundation, 2016.
Note: Percentages may not sum 100% due to rounding.

Forty-nine percent of Alabama children aged 0-18 years were covered under their parent or guardian's employer health insurance (Table 9). Another 39 percent of children aged 0-18 years were insured via Medicaid and 9 percent of children in Alabama were uninsured.

Table 9. Distribution of Children (Aged 0-18 years) by Health Insurance Coverage, Alabama 2014, United States 2014

Health Insurance Coverage	Alabama	United States
Employer	45%	47%
Individual	†NSD	5%
Medicaid	43%	39%
Other Public	†NSD	2%
Uninsured	5%	6%

Source: Kaiser Family Foundation, 2016.
Note: Percentages may not sum 100% due to rounding. †NSD – No Statistical Data

I. SCOPE OF THE HIV EPIDEMIC

A. HIGHLIGHTS

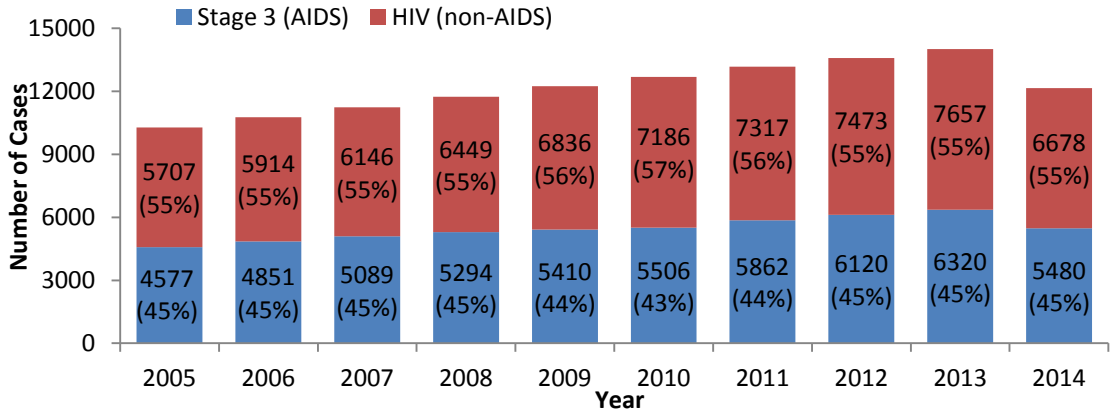
The HIV epidemic affects persons in all gender, age, race, ethnicity, and socioeconomic groups and in every county in Alabama. However, the effect has not been the same for all groups. At the beginning of the epidemic, the majority of HIV infections occurred in White men who have sex with men (MSM). Recent trends suggest a shift in the HIV epidemic toward African Americans and high-risk heterosexual activity. With the number of deaths among people diagnosed with HIV continuing to decline and the number of people living with HIV continuing to increase, the importance of identifying populations most affected and at risk for HIV infection is paramount. Alabama must be diligent in planning effective HIV prevention and care efforts with the allocation of limited resources. This section provides detailed information about demographics, risk characteristics, and trends of HIV infections diagnosed among Alabama residents diagnosed through 2016.

B. OVERALL HIV TRENDS

The state of Alabama continues to experience an HIV epidemic of moderate magnitude when compared to other states. A cumulative total of 19,677 HIV infections have been diagnosed among Alabama residents since reporting began in 1982, with 12,158 HIV positive individuals currently living in Alabama, as of December 31, 2014. During 2014, 681 newly diagnosed HIV infections were reported among Alabama residents.

The proportion of persons living with HIV (non-AIDS) compared to Stage 3 (AIDS) infection has remained relatively stable over the past ten years (Figure 2) noting that 2014 was adjusted for current address. This trend is largely due to the introduction of effective drug treatments and therapies, which are able to delay the progression to Stage 3 (AIDS) diagnoses and death. At the end of 2014, 5,480 (45 percent) of known HIV positive individuals were reported be living with Stage 3 (AIDS) diagnoses.

Figure 2. Persons Living with HIV (non-AIDS) and AIDS, Alabama 2005-2014



Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.
Persons living with HIV (non-AIDS) and AIDS include persons living as of December 31st for the year reported.

Table 10. Characteristics of Newly Diagnosed and Prevalent HIV Cases, Alabama 2014

Characteristic	Newly Diagnosed Cases		Prevalent Cases	
	Number (%)	Rate	Number (%)	Rate
Gender				
Male	552 (81.1)	23.5	8759 (72.6)	372.7
Female	129 (18.9)	5.2	3399 (27.5)	135.6
Race/Ethnicity				
Black, Not Hispanic	481 (70.6)	37.6	7885(69.9)	616.7
White, Not Hispanic	160 (23.5)	5.0	3441 (28.3)	107.2
Multiple Races	18 (2.6)	26.4	413 (3.5)	605.0
Hispanic	20 (2.9)	10.0	313 (2.6)	156.0
Other/Unknown	2 (0.3)	-	99 (0.9)	107.3
Age Group (years)				
<13	(0.1)	-	37 (0.3)	4.7
13-19	40(5.9)	9.0	86 (0.6)	19.4
20-29	321 (47.1)	47.9	1797 (12.8)	268.2
30-39	130 (19.1)	21.5	2781 (19.8)	460.9
40-49	97 (14.2)	15.5	4228 (30.2)	677.8
≥50	92 (13.5)	5.4	5090 (36.3)	296.2
Reported Risk Factor				
Men who have Sex with Men (MSM)	369 (54.2)	N/A	6079 (43.4)	N/A
Heterosexual Contact	68 (10.0)	N/A	2831 (20.2)	N/A
Injection Drug Use (IDU)	10 (1.5)	N/A	974 (7.0)	N/A
MSM/IDU	7 (1.0)	N/A	563 (4.0)	N/A
Perinatal Exposure	1 (0.1)	-	106 (0.8)	N/A
Transfusion/Hemophilia	-	-	35 (0.3)	N/A
Undetermined	226 (26.0)	N/A	3431 (24.5)	N/A
Imputed Risk among Cases ≥13 years				
MSM	487 (71.5)	N/A	7600 (54.4)	N/A
Heterosexual Contact	151 (22.2)	N/A	4284 (30.6)	N/A
IDU	30 (4.4)	N/A	1372 (9.8)	N/A
MSM/IDU	13 (1.9)	N/A	677 (4.8)	N/A
Other Confirmed Risk	-	-	49 (0.3)	N/A
Public Health Area (PHA)				
PHA 1	13 (1.9)	4.3	270 (1.9)	90.3
PHA 2	61 (8.9)	7.4	1420 (10.3)	172.6
PHA 3	44 (6.5)	15.5	606 (4.3)	212.9
PHA 4	164 (24.1)	24.8	3812 (27.2)	576.9
PHA 5	33 (4.9)	6.0	685 (4.9)	124.2
PHA 6	32 (4.7)	9.6	689 (4.9)	206.0
PHA 7	19 (2.8)	14.1	432 (3.1)	320.0
PHA 8	143 (21.0)	22.0	2478 (17.7)	380.9
PHA 9	30 (4.4)	8.1	668 (4.8)	179.4
PHA 10	39 (5.7)	12.1	899 (6.4)	278.6
PHA 11	103 (15.1)	24.8	2014 (14.4)	485.2
Unknown	-	-	46 (0.3)	1.0
Total	681 (100)	14.0	12158 (100)	250.7

Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.

Note: Imputed risk estimated utilizing multiple imputation methodology among cases ≥13 years. Newly diagnosed age group represents age at diagnosis. Prevalent age group represents current age. Percentages may not sum 100% due to rounding. Rates per 100,000 persons calculated using US Census Bureau 2014 population estimates. Rates only calculated for variables with ≥ 5 cases. Case counts less than 12 (and accompanying rates and trends) are considered statistically unreliable and should be interpreted with extreme caution

Blacks continue to be disproportionately affected by the HIV epidemic compared to other racial and ethnic groups (Table 10). Although 27 percent of Alabama's population identified Black during 2014 according to United States Census Bureau population estimates, 71 percent of newly diagnosed HIV cases and 70 percent of all persons living with HIV were Black during 2014.

Over half (66 percent) of newly diagnosed HIV infections in 2014 occurred among adults in their twenties and thirties - 47 percent and 19 percent, respectively (Table 10). However, the majority of persons living with HIV infection (i.e., prevalent cases) were 40 years or older (67 percent).

In 2014, over half of the newly diagnosed cases (54 percent) and 43 percent of the prevalent cases reported male-to-male sexual activity as the primary risk factor for infection. Imputed risk estimates 72 percent of newly diagnosed cases and 54 percent of prevalent cases occurring in adults and adolescents ≥ 13 years may have been due to male-to-male sexual activity. Heterosexual contact was the second leading risk factor for HIV infection, representing 10 percent of newly diagnosed cases and 20 percent of prevalent cases. Imputed risk estimates 22 percent of newly diagnosed cases and 31 percent of prevalent cases occurring in adults and adolescents ≥ 13 years may have been due to heterosexual contact.

Sixty-two percent of all 2014 newly diagnosed and prevalent HIV cases resided in Public Health Areas (PHAs) 4, 8, and 11, where the larger cities of Birmingham, Montgomery, and Mobile are located (Table 10).

Five of Alabama's 6 most populous counties (Jefferson, Mobile, Montgomery, Madison, and Tuscaloosa) consistently report the highest number of new HIV cases each year (Table 11). Each of these counties are considered major urban counties with > 200,000 residents and combined, they account for over 60 percent of newly diagnosed infections annually. Jefferson County, with a population > 650,000, averages 27 percent of newly diagnosed HIV infections each year.

Table 11. Top Five Counties with the Highest Frequency of Newly Diagnosed HIV Cases, Alabama 2010 – 2014

	2010		2011		2012		2013		2014	
County	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Jefferson	194	29.5	207	31.5	193	29.3	171	25.9	164	24.8
Madison	36	10.7	46	13.5	44	12.8	41	11.8	41	11.7
Mobile	91	22.0	96	23.2	89	21.5	95	22.9	103	24.8
Montgomery	77	33.5	79	34.1	71	31.0	72	31.8	97	42.9
Tuscaloosa	31	15.9	26	13.2	32	16.1	47	23.4	31	15.3
Statewide	693	14.5	705	14.7	677	14.1	647	13.4	681	14.0

Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.
Note: All rates are per 100,000 county populations, calculated from the 2010 United States Census report (i.e., 2010 estimate for 2009-2010, 2011 estimate for 2011, 2012 estimate for 2012, 2013 estimate for 2013, and 2014 estimate for 2014.)

However, the rate of new HIV infections per 100,000 residents is often highest in Alabama's rural counties (Table 12). Rates are only calculated for counties with ≥ 5 cases, and all but one of the rural counties (Russell County) ranked among the top five between 2010 and 2014 are considered extremely rural, with populations below 50,000 residents. In fact, Jefferson and Montgomery Counties are the only non-rural counties ranked among the top 5, with Montgomery consistently ranking each of the past five years. The high rates seen in Alabama's rural counties indicate a need for increased HIV prevention efforts in focused rural areas.

Table 12. Annual Top Five County Highest Rates of Newly Diagnosed HIV Cases, Alabama 2010-2014

	2010		2011		2012		2013		2014	
County	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate	Cases	Rate
Bullock	0	-	1	-	0	-	3	28.2	12	111.5
Chambers	9	26.4	11	32.4	5	14.7	5	17.6	12	35.2
Conecuh	2	-	4	-	1	-	5	38.8	3	-
Dale	9	17.9	1	-	2	-	9	18.0	22	44.5
Dallas	5	11.4	10	23.2	13	30.5	14	33.3	8	19.2
Greene	0	-	1	11.2	2	22.6	1	-	6	70.2
Hale	7	44.5	7	45.5	1	-	4	-	7	46.1
Jefferson	194	29.5	207	31.5	193	29.3	171	25.9	164	24.8
Lowndes	5	44.3	6	54.0	0	-	5	46.7	2	-
Montgomery	77	33.5	79	34.1	71	31.0	72	31.8	97	42.9
Pickens	3	-	2	-	6	31.0	1	-	4	-
Russell	18	33.8	6	10.9	7	12.1	8	13.4	12	20.1
Statewide	693	14.5	705	14.7	677	14.1	647	13.4	681	14.0

Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.

Note: Rates per 100,000 persons calculated using US Census Bureau 2014 population estimates. Rates only calculated for counties with ≥ 5 cases. The highest five rates per year are highlighted in gray. Case counts less than 12 (and accompanying rates and trends) are considered statistically unreliable and should be interpreted with extreme caution. All rates are per 100,000 county populations, calculated from the 2010 United States Census report (i.e., 2010 estimate for 2009-2010, 2011 estimate for 2011, 2012 estimate for 2012, 2013 estimate for 2013, and 2014 estimate for 2014.)

HIV BY RACE, ETHNICITY, AND BIRTH SEX

The HIV epidemic continues to disproportionately affect Blacks in Alabama. In 2014, the rate of HIV diagnosis among both Black males and Black females was 8 times that of White males and White females (7.6 and 8.6, respectively.) (Table 13).

Table 13. Newly Diagnosed HIV Cases by Race, Ethnicity, and Birth Sex, Alabama 2014

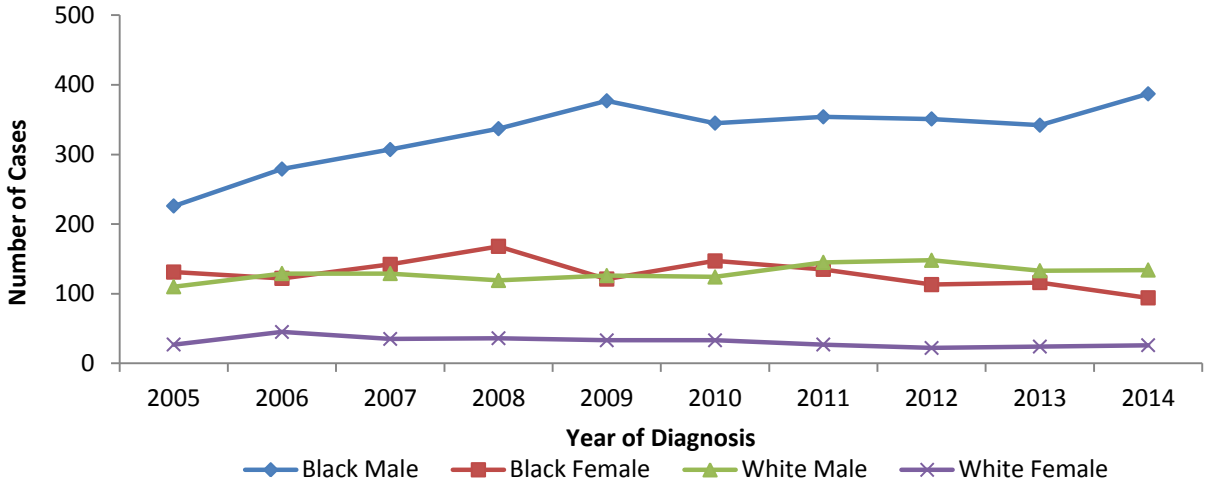
	Males		Females		Total	
	Number	Rate	Number (%)	Rate	Number (%)	Rate
Race/Ethnicity	(%)					
Black, Not Hispanic	387 (70.1)	65.0	94 (72.9)	13.8	481 (70.6)	37.6
White, Not Hispanic	134 (24.3)	8.5	26 (20.2)	1.6	160 (23.5)	5.0
Multiple Races	13 (2.4)	37.1	5 (3.9)	15.1	18 (2.6)	26.4
Hispanic	16 (2.9)	14.8	4 (3.1)	-	20 (2.9)	10.0
Other/Unknown	2 (0.4)	-	0 -	-	2 (0.3)	-
Total	552 (100)	23.5	129 (100)	5.2	681 (100)	14.0

Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.

Note: All rates are per 100,000 populations, calculated using race/ethnicity reported in the 2040 United States Census Estimates. Rates only calculated for race/ethnicity with ≥ 5 cases. Case counts less than 12 (and accompanying rates and trends) are considered statistically unreliable and should be interpreted with extreme caution. Percentages may not sum 100% due to rounding.

Black males continue to have the highest number of newly diagnosed HIV infections each year, averaging over one-half (52%) of all cases over the past 5 years (Figure 3). The number of newly diagnosed HIV infections among White males and Black females remained closely the same for the past four years with White males slightly greater averaging 140 cases over that time period.

Figure 3. Trends in Newly Diagnosed HIV Cases by Race and Sex, 2005-2014



Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.

HIV by Age Group

In 2014, nearly one-half (47 percent) of all newly diagnosed HIV infections were young adults in their twenties, then declined with subsequent age groups (Table 14). Men experienced a sharper decline than women. Fifty percent of males were diagnosed during their twenties, compared to 34 percent of females. Twenty-six percent of men were 40 or older at diagnosis, comparable to 34 percent of women.

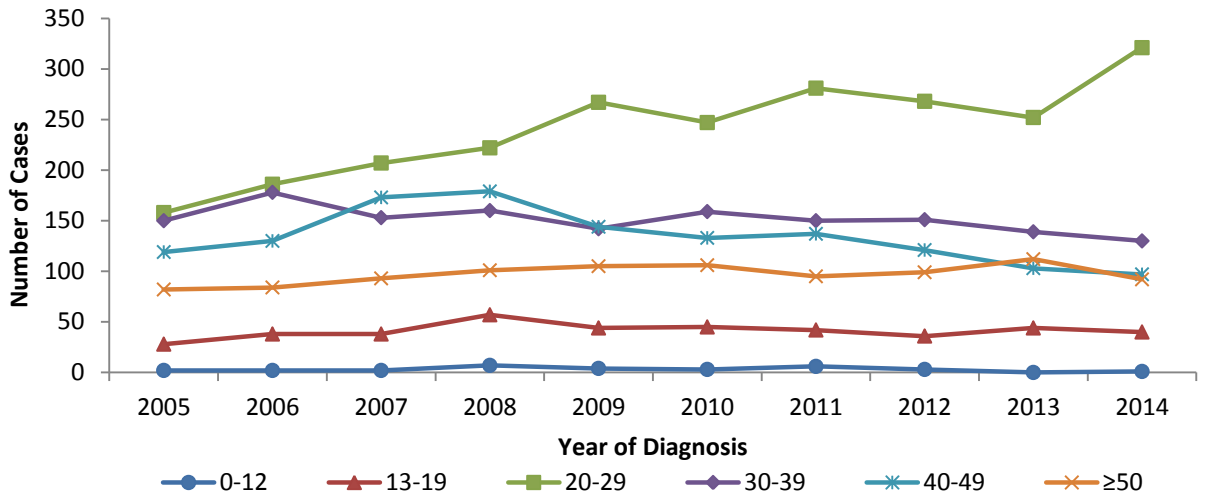
Table 14. Newly Diagnosed HIV Cases by Age Group and Sex, Alabama 2014

Age Group (years)	Males (N=552), Number (%)	Females (N=129), Number (%)	Total (N=681), Number (%)
0-12	-	1 (0.7)	-
13-19	33 (6.0)	7 (5.4)	40 (5.9)
20-29	277 (50.2)	44 (34.1)	321 (47.1)
30-39	97 (17.6)	33 (25.6)	130 (19.1)
40-49	79 (14.3)	16 (14.0)	97 (14.2)
≥50	66 (12.0)	26 (20.2)	92 (13.5+)

Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.

In stratifying the 2014 data by age, young adults in their twenties emerged as the most affected age group (Figure 4). Prior to 2005, the majority of new HIV cases were reported among adults in their thirties. This downward shift in Alabama's newly diagnosed HIV population calls for increased prevention efforts targeting a younger population. The "High Risk Target Groups" section provides a closer look at these findings.

Figure 4. Trends in Newly Diagnosed HIV Cases by Age Group, Alabama 2005-2014



Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.

HIV by Mode of Exposure

During 2014, the majority (76 percent) of newly diagnosed cases reported MSM (alone or in combination with intravenous drug use [IDU]) as the primary mode of exposure (Table 15). Data were statistically adjusted to account for missing transmission category. An estimated 1 in 5 (20.3 percent) MSM living with HIV in Alabama are unaware of their infection and, thus, are not receiving regular medical care to manage the disease. Prevalence estimates suggests as many as 500 HIV infections occurred among MSM and combined MSM/IDU during 2014.

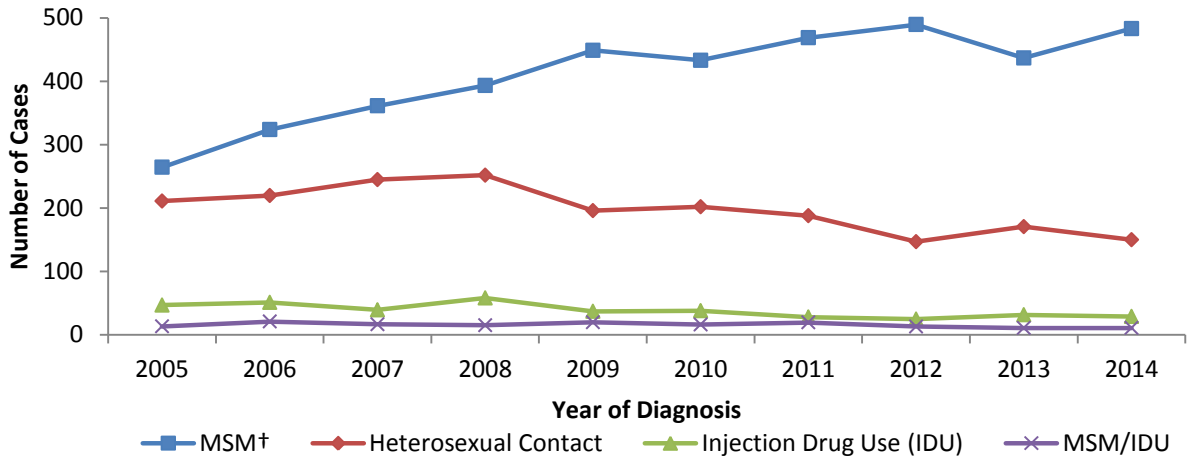
Table 15. Newly Diagnosed HIV Cases by Mode of Exposure and Race/Ethnicity, Alabama 2014

Mode of Exposure	Black, Not Hispanic Number (%)	White, Not Hispanic Number (%)	Multiple Races, Number (%)	Hispanic, Number (%)	Total, Number (%)
MSM	339 (71.4)	120 (75.0)	11 (57.9)	12 (60.0)	482 (71.6)
Heterosexual Sex	116 (24.4)	23 (14.3)	4 (21.0)	7 (35.0)	150 (22.3)
IDU	15 (3.2)	10 (6.3)	3 (15.8)	1 (5.0)	29 (4.3)
MSM/IDU	4 (0.8)	7 (4.4)	1 (5.3)	-	12 (1.8)
Total	474 (100)	160 (100)	19 (100)	20 (100)	673 (100)

Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.
Note: Imputed risk was estimated utilizing multiple imputation methodology among cases ≥13 years and did not assign risk for 8 cases, therefore, n=673 for Table 6. Percentages may not sum 100% due to rounding.

Over the past 10 years, newly diagnosed HIV infections among MSM have increased while the number of new cases reported among heterosexuals has decreased (Figure 5). However, it is important to note that the steady rise of HIV among MSM is not isolated. Many HIV positive MSM do not identify as being gay or bisexual, and identify as heterosexual. While recent trends indicate an increased need for HIV treatment and prevention efforts among MSM, statewide efforts should continue to target all individuals, regardless of sexual orientation.

Figure 5. Trends in Newly Diagnosed HIV Cases by Mode of Exposure, Alabama 2005-2014

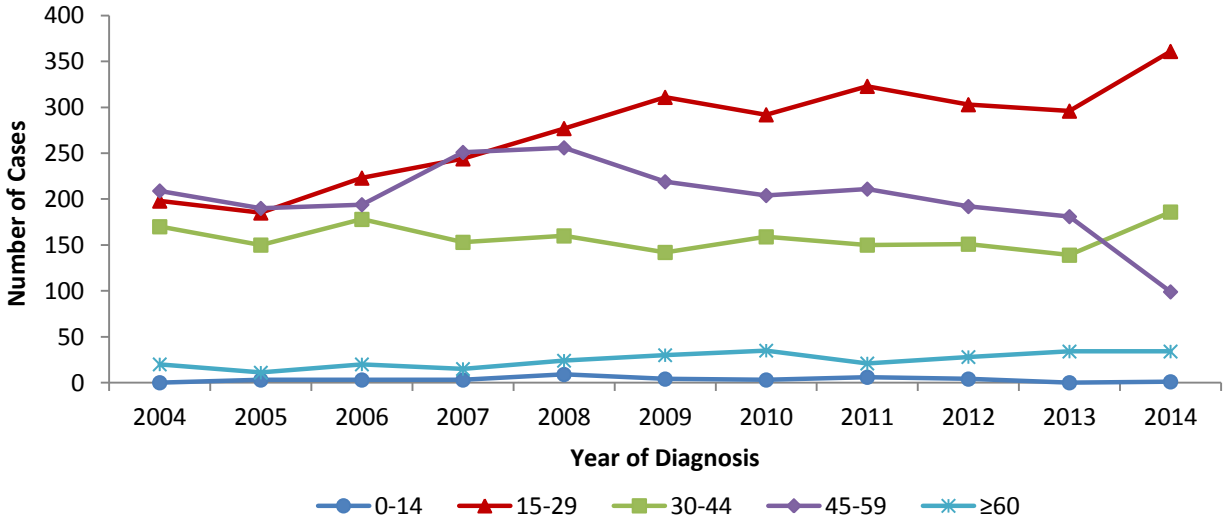


Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.
Note: Multiple imputation methodology was used to estimate unknown risk among cases ≥13 years. †MSM - Men who have Sex with Men.

HIGH RISK TARGET GROUPS

Alabama is experiencing a downward shift in the age distribution of newly diagnosed HIV infections as adolescents and young adults age 15-29 years are now the most affected age group (Figure 6). The age data were redistributed into five age groups for Figure 6 in comparison with the six age groups in Figure 4.

Figure 6. Trends in Newly Diagnosed HIV Cases by Redistributed Age Group, Alabama 2004-2014



Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.

Adolescents and young adults (15-29 years) are twice as likely to be infected with HIV as the average Alabama resident and represent over one-half (53 percent) of all newly diagnosed cases (Table 16), although this age group accounts for only 20 percent of Alabama's population. In contrast, the majority (53 percent) of persons living with HIV infection in Alabama as of December 31, 2014 are age 45 or

older, due to the availability of and adherence to effective antiretroviral therapies. Without early, primary prevention education, the alarming rate of new infections among adolescents and young adults can be expected to significantly increase the total number of persons living with HIV infection in Alabama, as HIV positive individuals are becoming infected at a younger age and living longer.

Table 16. HIV Infection Rates by Age Group, Alabama 2014

	Newly Diagnosed, 2014		Persons Living with HIV, 2014	
Age Group (Years)	**Number (%)**	**Rate**	**Number (%)**	**Rate**
0-14	1 (0.1)	0.1	39 (0.3)	4.3
15-29	361 (53.0)	36.5	1793 (14.8)	181.5
30-44	186 (27.3)	20.3	3847 (31.6)	420.3
45-59	99 (14.5)	10.0	5127 (42.2)	516.9
≥60	34 (5.0)	3.3	1350 (11.1)	130.0
Statewide Total	681 (100)	14.0	12156 (100)	250.1

Source: Alabama Department of Public Health, Division of STD Prevention and Control.

Note: Newly diagnosed age groups are age at diagnosis. Prevalent age groups are current age. Rates per 100,000 Alabama residents in each age group reported in United States Census Bureau, 2014 Population Estimates. Percentages may not sum 100% due to rounding.

Black males represent the majority (66%) of newly diagnosed HIV infections among adolescents and young adults age 15-29 years (Table 8). They have over 10 times the risk of becoming infected as the average Alabama resident, and 9 times the risk of infection as their white counterparts (Tables 7 and 8). The infection rate among prevalent Black males aged 15-29 years is 10 times that of their White counterparts.

Table 17. HIV Infection Rates among Adolescents and Young Adults (15-29 Years) by Race, Alabama 2014

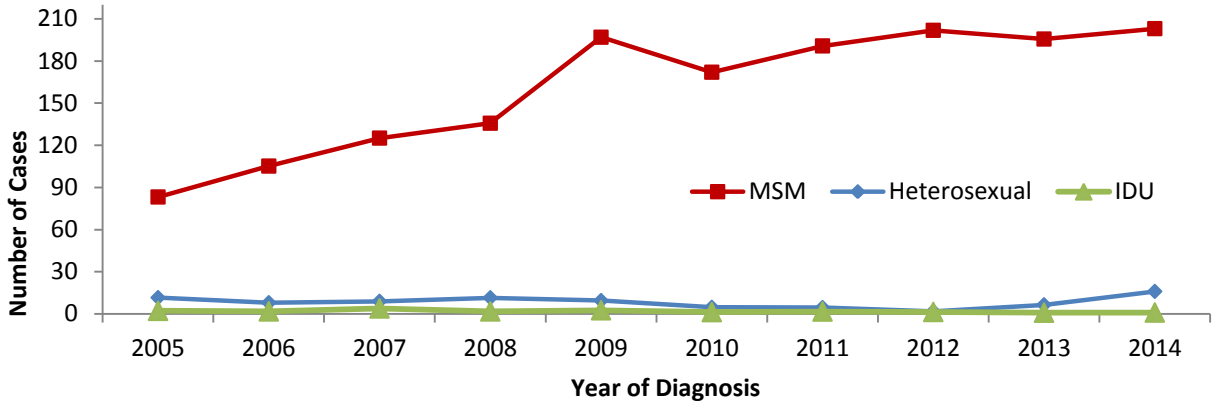
	Newly Diagnosed, 2014		Persons Living with HIV, 2014	
Race and Birth Sex	**Number (%)**	**Rate**	**Number (%)**	**Rate**
Black, Not Hispanic				
Males	238(85.6)	161.3	1120 (62.9)	759.2
Females	40 (14.4)	25.6	278 (15.1)	177.8
White, Not Hispanic				
Males	56(84.8)	18.5	229 (12.2)	75.7
Females	8 (15.2)	2.7	41 (3.1)	13.9
Total				
Males	310(85.9)	62.6	1349 (80.9)	272.4
Females	51(14.1)	10.4	319 (19.)	64.7

Source: Alabama Department of Public Health, Division of STD Prevention and Control.

Note: Newly diagnosed age groups are age at diagnosis. Prevalent age groups are current age. Rates per 100,000 Alabama residents in each race and sex group reported in United States Census Bureau, 2014 Population Estimates. Percentages may not sum 100% due to rounding.

Sex with another male is the predominant risk factor reported among newly diagnosed HIV cases in adolescent and young adult Black males as demonstrated in Figure 7 and Table 17. It is key to note that many young Black MSM do not identify as being gay or bisexual and only report as exclusively engaging in heterosexual sex with women. Therefore, increased HIV infection rates in young women can be expected to follow. Effective HIV prevention efforts must target adolescent and young adult Black men, regardless of sexual orientation.

Figure 7. Trends in Newly Diagnosed HIV Cases among Black Males (Age 15-29 Years) by Mode of Exposure, Alabama 2005-2014

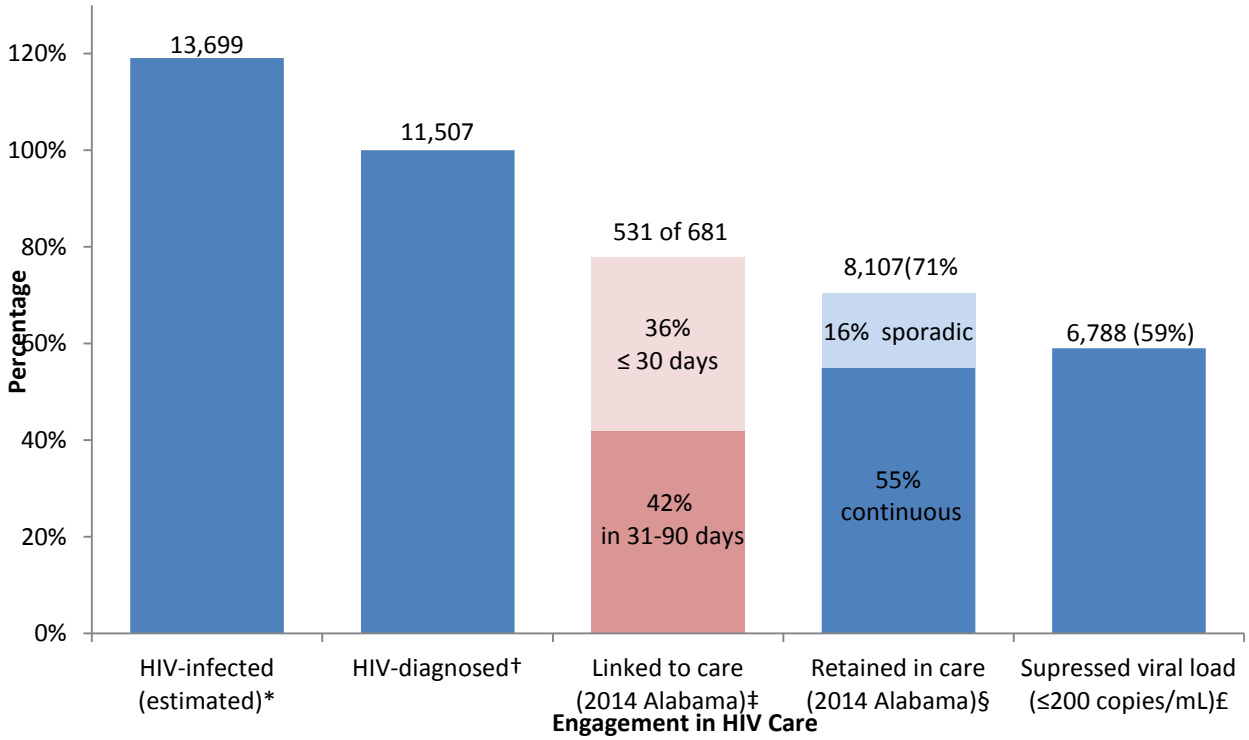


Source: Alabama Department of Public Health, Division of STD Prevention and Control.
Note: Multiple imputation methodology was used to estimate unknown risk among cases ≥13 years. MSM - Men who have Sex with Men, IDU - Intravenous Drug Use. MSM includes any MSM (i.e., MSM alone and in combination with IDU).

B. HIV Treatment Cascade

Guidance from the National HIV Surveillance System (NHSS) was used to create Alabama's HIV Treatment Cascade Graph (Figure 8). During 2014, 78 percent of the 681 newly diagnosed HIV infections were linked to care within 3 months of diagnosis (Figure 10). Of the 11,507 persons diagnosed with HIV infection through December 31, 2013 and living as of December 31, 2014, 71 percent were retained in care and 59 percent achieved viral suppression (≤200 copies/mL) during 2014. Being virally suppressed—which means that HIV is under control at a level that keeps people healthy and reduces the risk of transmitting the virus to others—not only improves a person with HIV's health and enhances their lifespan; it also significantly reduces their risk of transmitting HIV to partners. People living with HIV who adhere to antiretroviral therapy (ART) and have suppressed viral loads can reduce the risk of sexual transmission of HIV by 96%.

Figure 8. HIV Treatment Cascade -- Persons Living with HIV Infection in Alabama, 2014



Note: 2014 data is complete and was finalized December 31, 2015. Data accessed March 31, 2016.

*Estimated by applying Alabama's HIV-prevalence estimate (84.0%) to the number of persons diagnosed with HIV infection through December 31, 2013 and alive as of December 31, 2014 (i.e., 84% of persons aged ≥13 years living with HIV infection in Alabama are aware of their infection and 16%, or 1 in 6 HIV-positive individuals, are unaware of their infection).

†Defined as persons diagnosed with HIV infection through December 31, 2013 and alive as of December 31, 2014.

‡Calculated as the percentage of persons linked to care, evidenced by ≥1 CD4 and/or viral load test(s) within 90 days of diagnosis, among those newly diagnosed with HIV infection during 2014.

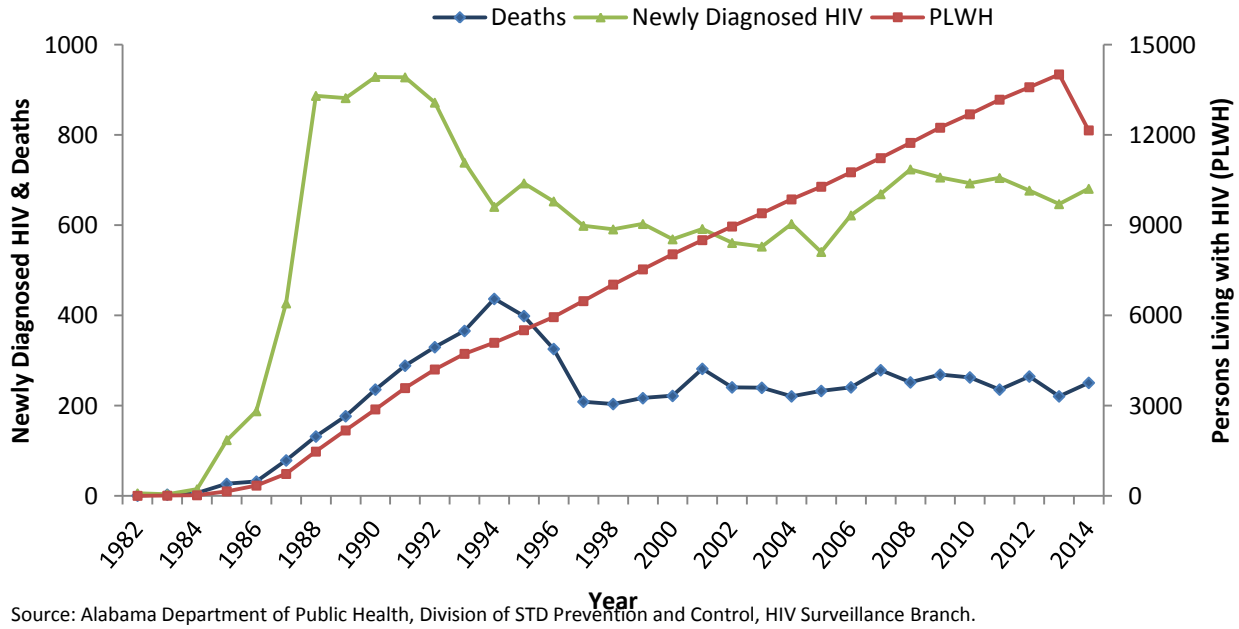
§Calculated as the percentage of persons accessing care during 2014, among those diagnosed with HIV through December 31, 2013 and alive as of December 31, 2014. Sporadic care is evidenced by only 1 CD4 or viral load test while continuous care is evidenced by ≥2 CD4 and/or viral load tests collected at least 90 days apart.

£Calculated as the percentage of persons who had suppressed viral load (≤200 copies/mL) during 2014, among those diagnosed with HIV through December 31, 2013 and alive as of December 31, 2014.

HIV/AIDS Mortality

Since 2005, the number of deaths has averaged 251 per year (range 221-279). Newly diagnosed HIV infections have dropped slightly over the past six years. At the end of 2014, 12,158 persons were known to be living with HIV infection in Alabama. This reflects a 13 percent decrease in PLWH from 2013 due to an update in surveillance (eHARS database) data with current patient addresses that accounts for PLWH who have moved from Alabama (Figure 9).

Figure 9. Persons Living with HIV, Newly Diagnosed HIV, and Deaths, Alabama 1982-2014



Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.
Note: PLWH include persons living with HIV infection (non-AIDS) and Stage 3 (AIDS) as of December 31st for the year reported.

HIV INCIDENCE ESTIMATE

HIV Incidence Surveillance is a supplemental National HIV Surveillance System (NHSS) activity funded by the Centers for Disease Control and Prevention (CDC), and conducted in 25 areas across the United States, including Alabama. HIV incidence estimates provide the most representative picture of HIV trends available, identifying at-risk target groups for focused prevention efforts. HIV Incidence Surveillance provides national and local estimates of the number of recent HIV infections in a given period, and is different from the number of newly diagnosed HIV infections reported through case surveillance. Whereas a person newly diagnosed with HIV may have been infected for years before diagnosis, HIV incidence refers to persons recently infected with HIV within the last 5 months. As an HIV Incidence Surveillance site, Alabama is able to provide local incidence estimates to depict the burden of HIV in the state and assess the effectiveness of prevention efforts over time.

The CDC's HIV Incidence Surveillance methodology is based on an approach known as the Serologic Testing Algorithm for Recent HIV Seroconversion (STARHS). STARHS uses a special laboratory test (i.e., BED or AVIDITY assay) to classify newly diagnosed infections as either long-standing (i.e., infected ≥6 months prior to testing) or recent (i.e., infected within the last five months). The STARHS method is conducted on HIV-1 antibody positive blood samples collected within 90 days of diagnosis from newly diagnosed HIV cases age ≥13 years without a Stage three (AIDS) infection within six months of initial diagnosis. STARHS results indicating recent infection, in combination with case-based surveillance data HIV testing and treatment history (TTH) information, are used to estimate HIV incidence. The CDC extrapolates data collected by the 25 HIV Incidence Surveillance sites to estimate HIV incidence at the national level via a Stratified Extrapolation Approach.

The CDC estimates national HIV incidence has remained stable at about 50,000 infections per year since the mid-1990s. Blacks, Latinos, and gay and bisexual men who have sex with men (MSM) continue to be disproportionately affected by HIV in the United States. Similar disparities are seen in Alabama, where Blacks comprise 26 percent of the state's population (according to United States Census Bureau 2014 population estimates), but account for an estimated 71 percent of recent HIV infections in 2014 (Table 9). Of all recent estimated HIV infections during 2014, 76 percent were among gay and bisexual MSM, 19 percent were attributed to heterosexual contact, and four percent were attributed to injection drug use (IDU). Blacks experienced similar risk factors, with 77 percent of estimated recent infections occurring among MSM, 21 percent attributed to heterosexual contact, and two percent attributed to IDU.

Alabama's 2013 HIV incidence estimate is compared to the most recent 2010 national HIV incidence estimate included in the CDC report, Estimated HIV incidence among adults and adolescents in the United States, 2007-2010.

Table 18. Annualized HIV Incidence Estimation among Adults and Adolescents ≥ 13 Years, by Year of Infection and Selected Characteristics, Alabama 2010-2014

	2010				2011			
	No.	**%**	**SD**	**(95% CI)†**	**No.**	**%**	**SD**	**(95% CI)†**
Sex								
Male	566	75.3%	119	(330-802)	680	82.6%	131	(423-937)
Female	186	24.7%	53	(82-289)	144	17.5%	42	(61-226)
Age at infection								
13-24	383	50.9%	86	(214-551)	343	41.7%	85	(176-510)
25-34	194	25.8%	57	(83-305)	250	30.4%	69	(114-385)
35-44	101	13.4%	40	(21-180)	118	14.3%	48	(24-211)
45-54	60	8.0%	30	(2-118)	91	11.1%	40	(12-169)
≥55	15	2.0%	17	(0-49)	22	2.7%	19	(0-65)
Race/Ethnicity								
Male								
Black	424	74.9%	101	(224-623)	465	68.4%	103	(263-667)
White	109	19.3%	47	(16-201)	166	24.4%	62	(44-288)
Hispanic	4	0.7%	9	(0-21)	30	4.4%	24	(0-78)
Female								
Black	140	75.3%	46	(48-231)	110	76.4%	37	(36-183)
White	41	22.0%	22	(0-84)	27	18.8%	17	(0-61)
Hispanic	0	0.0%	0	-	0	0.0%	0	-
All								
Black	563	74.9%	109	(348-778)	575	69.9%	110	(359-790)
White	150	19.9%	51	(51-250)	193	23.5%	65	(66-320)
Hispanic	4	0.5%	9	(0-21)	30	3.6%	24	(0-78)
Risk Factor								
Black								
MSM	371	65.9%	94	(185-556)	422	73.4%	98	(229-614)
IDU	20	3.6%	19	(0-56)	17	3.0%	18	(0-53)
MSM/ IDU	16	2.8%	17	(0-49)	11	1.9%	16	(0-42)
Heterosexual	157	27.9%	52	(56-259)	124	21.6%	43	(40-209)
White								
MSM	100	66.7%	45	(12-189)	157	81.3%	61	(37-276)
IDU	9	6.0%	11	(0-31)	12	6.2%	12	(0-37)
MSM/IDU	6	4.0%	10	(0-26)	7	3.6%	12	(0-32)
Heterosexual	35	23.3%	20	(0-74)	17	8.8%	14	(0-45)
Hispanic								
MSM	4	100%	8	(0-20)	21	70.0%	21	(0-62)
IDU	0	0.0%	0	-	3	10.0%	7	(0-17)
MSM/IDU	0	0.0%	0	-	4	13.3%	9	(0-22)
Heterosexual	0	0.0%	0	-	4	13.3%	9	(0-22)
All								
MSM	504	67.0%	113	(280-728)	616	74.8%	126	(368-864)
IDU	29	3.9%	22	(0-73)	34	4.1%	23	(0-80)
MSM/IDU	22	2.9%	20	(0-60)	23	2.8%	23	(0-68)
Heterosexual	197	26.2%	58	(83-312)	151	18.3%	46	(61-241)
Total‡	**752**	**100**	**127**	**(502-1,003)**	**823**	**100**	**138**	**(553-1,094)**

Table 19. Annualized HIV Incidence Estimation among Adults and Adolescents ≥ 13 Years, by Year of Infection and Selected Characteristics, Alabama 2010-2014 *(continued)*

	2012				2013			
	No.	**%**	**SD**	**(95% CI)†**	**No.**	**%**	**SD**	**(95% CI)†**
Sex								
Male	558	81.8%	88	(384-731)	591	78.3%	111	(372-810)
Female	124	18.2%	49	(28-220)	164	21.7%	55	(56-272)
Age at infection								
13-24	309	45.3%	63	(186-433)	345	45.7%	81	(187-503)
25-34	226	33.1%	55	(119-333)	241	31.9%	67	(111-372)
35-44	87	12.8%	32	(24-150)	79	10.5%	39	(4-155)
45-54	52	7.6%	26	(0-103)	56	7.4%	33	(0-122)
≥55	8	1.2%	11	(0-30)	33	4.4%	25	(0-83)
Race/Ethnicity								
Male								
Black	396	71.0%	73	(253-539)	444	75.1%	96	(256-631)
White	121	21.7%	38	(46-196)	122	20.6%	49	(26-218)
Hispanic	5	0.9%	8	(0-20)	3	0.5%	9	(0-21)
Female								
Black	100	80.6%	43	(14-185)	129	78.7%	52	(28-231)
White	21	16.9%	18	(0-56)	30	18.3%	25	(0-78)
Hispanic	4	3.2%	8	(0-19)	3	1.8%	7	(0-16)
All								
Black	470	68.9%	85	(330-662)	573	75.9%	111	(356-790)
White	144	21.1%	43	(58-226)	152	20.1%	55	(44-259)
Hispanic	9	1.3%	11	(0-31)	6	0.8%	11	(0-28)
Risk Factor								
Black								
MSM	378	80.4%	71	(240-517)	398	69.5%	90	(222-574)
IDU	10	2.1%	14	(0-38)	11	1.9%	16	(0-41)
MSM/ IDU	6	1.3%	9	(0-23)	11	1.9%	14	(0-39)
Heterosexual	101	21.5%	42	(19-183)	153	26.7%	57	(40-266)
White								
MSM	108	75.0%	36	(37-180)	101	66.4%	44	(15-186)
IDU	11	7.6%	13	(0-35)	14	9.2%	16	(0-45)
MSM/IDU	6	4.2%	8	(0-23)	9	5.9%	13	(0-34)
Heterosexual	16	11.1%	17	(0-49)	28	18.4%	23	(0-74)
Hispanic								
MSM	3	33.3%	7	(0-16)	2	33.3%	7	(0-16)
IDU	0	0.0%	0	-	0	0.0%	0	-
MSM/IDU	0	0.0%	0	-	2	33.3%	6	(0-14)
Heterosexual	6	66.7%	9	(0-24)	3	50.0%	8	(0-19)
All								
MSM	524	76.8%	85	(358-690)	522	69.1%	103	(321-724)
IDU	21	3.1%	20	(0-60)	25	3.3%	22	(0-69)
MSM/IDU	13	1.9%	12	(0-37)	20	2.6%	20	(0-59)
Heterosexual	124	18.2%	47	(31-217)	188	24.9%	61	(67-308)
Total‡	**682**	**100**	**101**	**(484-880)**	**755**	**100**	**127**	**(505-1,005)**

Table 20. Annualized HIV Incidence Estimation among Adults and Adolescents ≥ 13 Years, by Year of Infection and Selected Characteristics, Alabama 2010-2014 *(continued)*

	2014			
	No.	**%**	**SD**	**(95% CI)†**
Sex				
Male	642	81.8%	91	(464-820)
Female	144	18.3%	42	(61-227)
Age at infection				
13-24	385	49.0%	67	(253-517)
25-34	264	33.6%	57	(153-375)
35-44	105	13.4%	35	(37-173)
45-54	28	3.6%	18	(0-62)
≥55	4	0.5%	8	(0-21)
Race/Ethnicity				
Male				
Black	454	70.7%	75	(308-601)
White	176	27.4%	46	(87-266)
Hispanic	1	0.2%	4	(0-8)
Female				
Black	99	68.8%	35	(31-168)
White	33	22.9%	18	(0-69)
Hispanic	1	0.7%	3	(0-7)
All				
Black	554	70.6%	84	(388-719)
White	209	26.6%	50	(111-306)
Hispanic	2	0.3%	5	(0-11)
Risk Factor				
Black				
MSM	425	76.7%	72	(283-566)
IDU	13	2.3%	13	(0-39)
MSM/ IDU	2	0.4%	5	(0-12)
Heterosexual	114	20.6%	38	(39-190)
White				
MSM	158	75.6%	44	(73-243)
IDU	14	6.7%	13	(0-38)
MSM/IDU	12	5.7%	11	(0-34)
Heterosexual	26	12.4%	17	(0-59)
Hispanic				
MSM	1	50.0%	4	(0-8)
IDU	0	0.0%	2	(0-5)
MSM/IDU	0	0.0%	0	-
Heterosexual	1	50.0%	3	(0-6)
All				
MSM	593	75.5%	87	(422-763)
IDU	31	3.9%	19	(0-68)
MSM/IDU	14	1.8%	13	(0-39)
Heterosexual	148	18.9%	43	(64-232)
Total‡	**785**	**100**	**102**	**(585-986)**

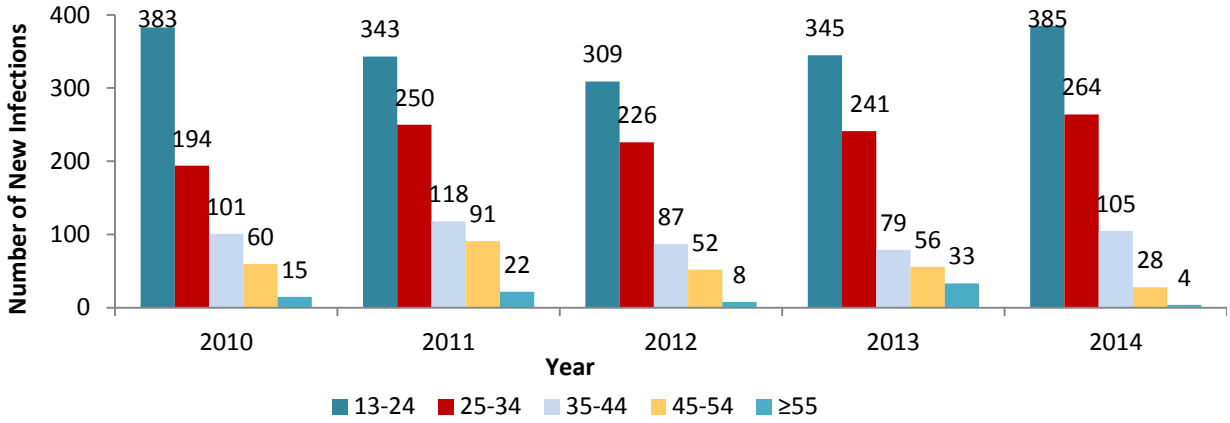
Source: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch.

Note: Data by transmission category have been statistically adjusted to account for missing risk-factor information via the multiple imputation method prior to HIV incidence estimation. CI- Confidence Interval. IDU – Injection Drug User. MSM – Men who have Sex with Men. SD – Standard Deviation. †Confidence intervals reflect random variability affecting model uncertainty but may not reflect model-assumption

uncertainty; thus, they should be interpreted with caution. ‡Because column totals for estimated numbers were calculated independently of subpopulation values, they may not sum to the column total and percentages may not sum 100%.

In 2014, the estimated number of recent HIV infections was highest among individuals aged 13-24 years (49 percent, 385 [95% CI: 253-517]), followed by individuals aged 25-34 years (34 percent, 264 [95% CI: 153-375]), and decreased with age (Table 9). Similar trends were seen in previous years (Figure 10). This downward shift in the age distribution of Alabama's recently infected HIV population indicates a need for increased prevention efforts targeting adolescents and young adults.

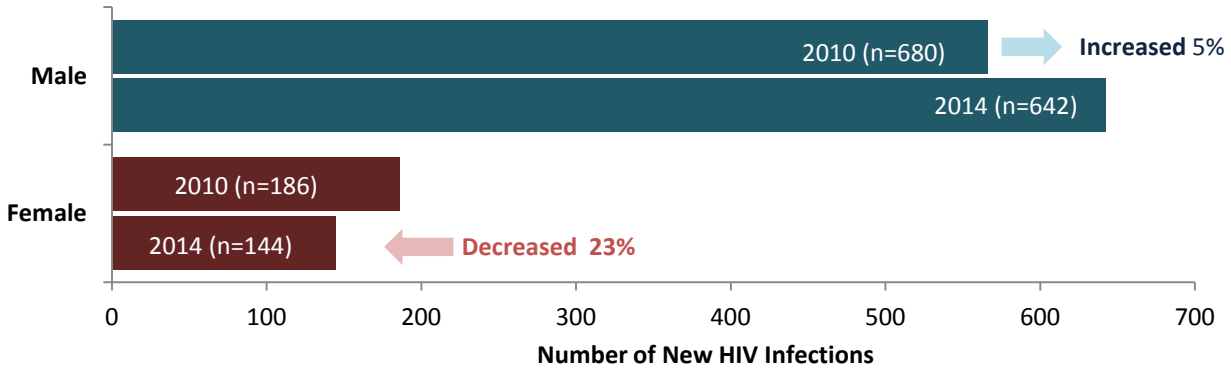
Figure 10. Estimated Recent HIV infections by Age Group, Alabama 2010-2014



Source: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch.

Comparing 2010 to 2014, the overall estimated number of recent HIV infections remained stable (Table 9). However, gender comparison shows the estimated number of recent HIV infections increased slightly among men between 2010 and 2014, while the number decreased in women (Figure 11). In 2014, the estimated rate of recent HIV infections among males (27.3 per 100,000 Alabama males) was 4.5 times that of females (5.8 per 100,000 Alabama females).

Figure 11. Estimated Number of Recent HIV Infections by Gender, Alabama 2010 and 2014

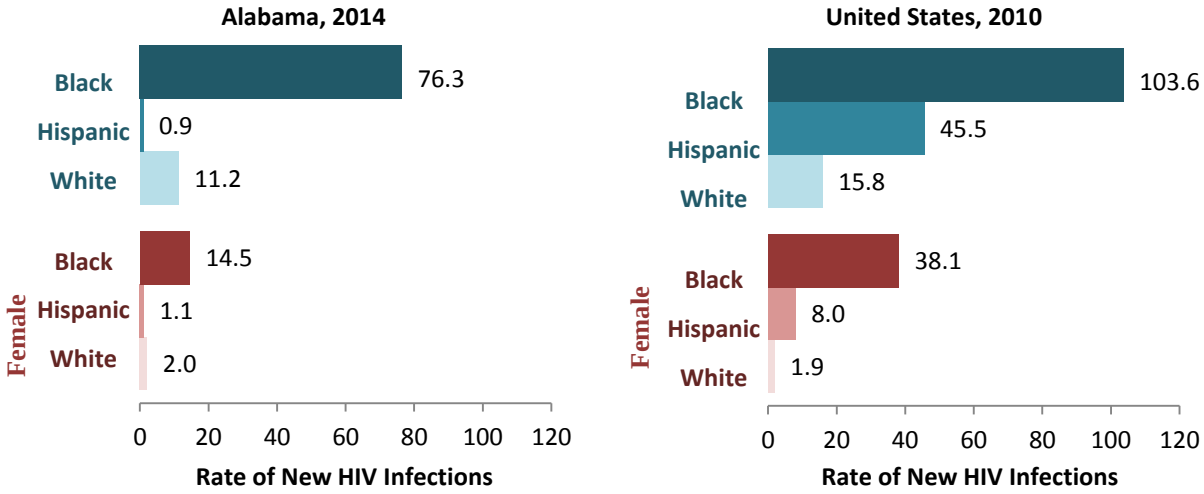


Source: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch.

Blacks remain disproportionately affected by HIV in Alabama. The estimated rate of recent HIV infections among Blacks (43.2 per 100,000 Blacks) was nearly 7 times (6.6) as high as the rate in Whites (6.5 per 100,000 Whites) in 2014. Racial disparities remained when incidence estimates were stratified by sex, with Alabama rates mirroring national trends (Figure 12). In Alabama, the estimated rate of

recent HIV infections in Black males (76.3 per 100,000 Black males) was 6.8 times as high as the rate in White males (11.2 per 100,000 White males) during 2014, compared to estimated rates 6.5 higher throughout the United States during 2010. Racial disparities among females were even more pronounced, with Black females having 7.3 times the estimated risk of HIV infection than White females in Alabama during 2014, compared to 20 times the risk throughout the United States in 2010. Continued HIV testing, treatment, and prevention programs are needed in the Black community.

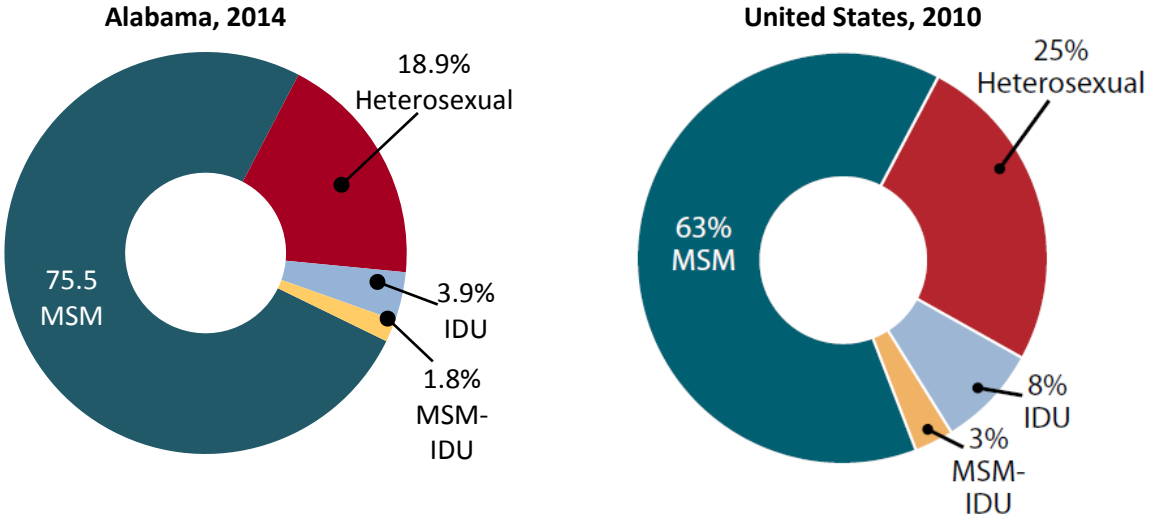
Figure 12. Estimated Rate of Recent HIV Infections, Alabama 2014 and United States 2010



Sources: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch. Centers for Disease Control and Prevention. Fact Sheet: Estimates of New HIV Infections in the United States, 2007-2010. http://www.cdc.gov/nchhstp/newsroom/docs/2012/HIV-Infections-2007-2010.pdf. Accessed 3/23/2016. Note: Alabama rates per 100,000 population calculated with U.S. Census Bureau 2014 population estimates for sex, race, and ethnicity.

Gay and bisexual MSM remain the population most heavily affected by HIV infection in Alabama and throughout the United States. In Alabama, MSM accounted for 76 percent of estimated recent infections during 2014, compared to 63 percent of estimated recent infections in the United States during 2010 (Figure 13). Comparing 2010 to 2014, the estimated number of recent HIV infections among MSM increased 9 percent while the number of recent infections among heterosexuals decreased eight percent in Alabama (Table 9).

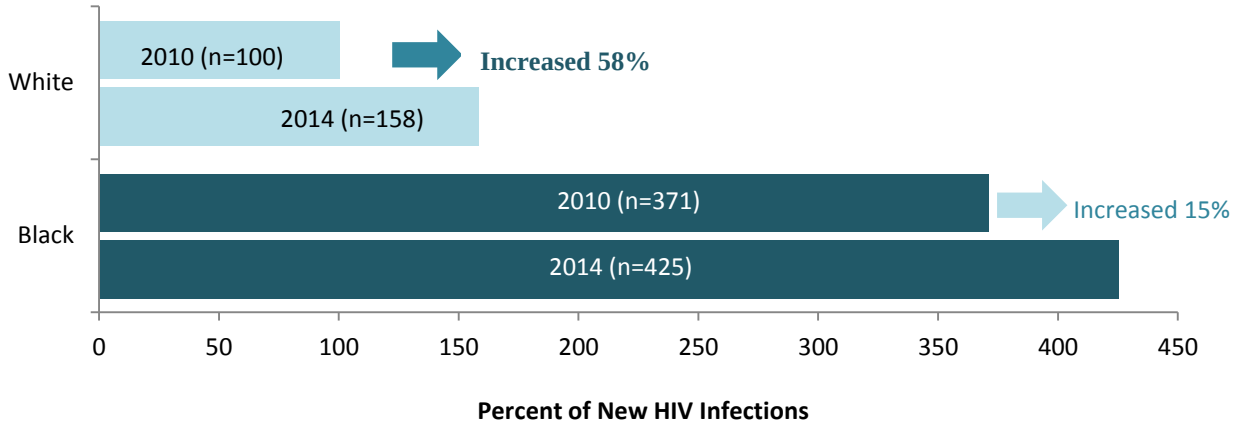
Figure 13. Estimated Recent HIV Infections by Transmission Category, Alabama 2014 and United States 2010



Sources: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch. Centers for Disease Control and Prevention. Fact Sheet: Estimates of New HIV Infections in the United States, 2007-2010. http://www.cdc.gov/nchhstp/newsroom/docs/2012/HIV-Infections-2007-2010.pdf. Accessed 3/23/2016.
Note: Data by transmission category have been statistically adjusted to account for missing risk-factor information via the multiple imputation method prior to HIV incidence estimation.

Stratification by race indicates an increase in the estimated number of recent HIV infections among Black (15 percent) and a substantial increase (58 percent) among White gay and bisexual MSM between 2010 and 2014 (Figure 14). HIV testing, treatment, and prevention efforts must reach gay and bisexual men, especially young Black men, to successfully prevent future infections. Since many MSM do not identify as being gay or bisexual, targeting young Black males, regardless of sexual orientation, is advised.

Figure 14. Estimated Number of Recent HIV Infections among Men who have Sex with Men by Race, Alabama 2010 and 2014



Source: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch.

Alabama's HIV incidence data estimates 785 cases of recent HIV infections (rate 16.2 per 100,000) occurred among adults and adolescents ≥ 13 years during 2014 (Table 10). Between 2010, and 2014, the estimated number and rate of recent HIV infections remained stable, aside from a slight increase in 2011 to 823 (rate of 17.1 per 100,000) and a significant decrease during 2012 to 682 estimated recent infections (rate of 14.2 per 100,000). Further analysis indicates no significant difference exists between 2010, 2011, 2012, 2013, and 2014 annualized HIV incidence estimates and the increase in 2011 as well as the decrease in 2012 was likely due to chance (Table 21).

Table 21. Estimated Incidence of HIV Infection among Adults and Adolescents ≥ 13 Years, Alabama 2010-2014

Year	Estimated No.	(95% CI)†	Population Estimate	Estimated Rate	(95% CI)†
2010	752	(502-1,003)	4,785,570	15.7	(10.5-21.0)
2011	823	(553-1,094)	4,801,627	17.1	(11.5-22.8)
2012	682	(484-880)	4,817,528	14.2	(10.0-18.3)
2013	755	(505-1,005)	4,833,722	15.6	(10.4-20.8)
2014	785	(585-986)	4,849,377	16.2	(12.1-20.3)

Source: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch. †CI- Confidence Interval. Confidence intervals reflect random variability affecting model uncertainty but may not reflect model-assumption uncertainty; thus, they should be interpreted with caution. Rates per 100,000 population calculated with U.S. Census Bureau 2010, 2011, 2012, 2013, and 2014 population estimates.

Table 22. Comparison of HIV Incidence Estimates among Adults and Adolescents ≥ 13 Years, Alabama 2010-2014

Comparison	Year 1		Year 2		Z-Test Results	
(Year 1 vs Year 2)	Incidence Estimate	SD†	Incidence Estimate	SD†	Z Statistic	P Value
2010 vs. 2011	752	127.2	823	137.6	0.400	0.69
2010 vs. 2012	752	127.2	682	100.8	0.457	0.65
2010 vs. 2013	752	127.2	755	127.3	0.015	0.99
2010 vs. 2014	752	127.2	785	102.3	0.217	0.83
2011 vs. 2012	823	137.6	682	100.8	0.877	0.38
2011 vs. 2013	823	137.6	755	127.3	0.385	0.70
2011 vs. 2014	823	137.6	785	102.3	0.236	0.81
2012 vs. 2013	682	100.8	755	127.3	0.474	0.64
2012 vs. 2014	682	100.8	785	102.3	0.777	0.44
2013 vs. 2014	755	127.3	785	102.3	0.200	0.84

Source: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch. †SD-Standard Deviation.

An estimated 1 in 6 (16.0 percent) people living with HIV in Alabama are unaware of their infection and 1 in 5 (20.3 percent) HIV-positive MSM are unaware of their status. Although counseling and testing data indicates repeat testers (i.e., individuals with one or more previously negative HIV test) report more HIV risk factors than first time testers, the estimated number of recent HIV infections in Alabama has been greater among first time testers in three of the previous four years (Table 22). This finding indicates HIV counseling and testing campaigns should eliminate testing barriers so that more individuals will undergo regular HIV testing and become aware of their HIV status. Only by increasing awareness will the true burden of HIV be known.

Table 23. HIV Incidence Testing History among Adults and Adolescents ≥ 13 Years, Alabama 2010-2014

Testing History	2010 Estimated No.	2010 %	2011 Estimated No.	2011 %	2012 Estimated No.	2012 %	2013 Estimated No.	2013 %	2014 Estimated No.	2014 %
New Testers	375	49.9	425	54.1	260	39.8	465	60.1	263	33.5
Repeat Testers	377	50.1	360	45.9	394	60.2	308	39.9	523	66.6
Total†	752	100	785	100	654	100	774	100	785	100

Source: Alabama Department of Public Health, STD Prevention and Control, HIV Surveillance Branch. †Because column totals for estimated numbers were calculated independently of the values for the subpopulations, the values in each column may not sum to the column total.

HIV UNMET NEED

Alabama's Notifiable Disease Rules were updated in June 2011 to require reporting of all HIV infections, including asymptomatic infections, AIDS, CD4 counts, and viral loads. The update requires all private and public laboratories to report CD4 counts and viral loads (detectable and undetectable). Before the update, measuring Alabama's unmet need had limitations as HIV viral loads, CD4 cell counts ≥200 copies per µl or ≥20 percent, and other tests indicative of HIV infection and HIV management were not reportable. Alabama's unmet need is now considered an accurate reflection of persons living with HIV who are not receiving adequate care.

According to the Health Resources and Services Administration (HRSA), HIV/AIDS Bureau (HAB), Unmet Need for HIV primary medical care is defined as no evidence of any of the following three components of HIV primary medical care during a specified 12-month time frame: viral load testing, CD4 count, or provision of anti-retroviral therapy (ART).

Using the HRSA/HAB Unmet Need Framework and HIV surveillance data collected in the Enhanced HIV/AIDS Reporting System (eHARS), Alabama's estimated Unmet Need during 2014 was 4,950 (Table 24). Of the 12,158 persons diagnosed with HIV in Alabama and living as of December 31, 2014, 41 percent did not access HIV primary medical care during the past 12 months (January 1, 2014 through December 31, 2014).

Table 24. Framework Utilized to Calculate Unmet Need as Determined by HRSA/HAB

HIV Population Size	Data Source	Number
A. PLWA as of December 31, 2014	eHARS	5,480
B. PLWH as of December 31, 2014	eHARS	6,678
HIV Care Patterns	**Data Source**	**Number (%)**
C. Percent PLWA receiving specified services during 2014	CD4/VL reported in eHARS	3,868 (70.6)
D. Percent PLWH receiving specified services during 2014	CD4/VL reported in eHARS	3,341 (50.0)
Unmet Need Calculations		**Unmet Need**
Unmet Need = [A*(1-C)] + [B*(1-D)] = [5,480*(1-0.706)] + [6,978*(1-0.500)]		4,950

Source: Alabama Department of Public Health, Division of STD Prevention and Control, HIV Surveillance Branch.
Note: Specified services include any of the following three components of HIV primary medical care during the 12-month time frame from January 1, 2014 through December 31, 2014: VL testing, CD4 count, or provision of anti-retroviral therapy (ART).
Abbreviations: eHARS - Enhanced HIV/AIDS Reporting System; HAB – HIV/AIDS Bureau; HRSA – Health Resources and Services Administration; PLWA - persons living with AIDS; PLWH - persons living with HIV, non-AIDS; VL – viral load.

III. INDICATORS OF RISK FOR HIV INFECTION

A. HEALTH INDICATORS

America's **Health Rankings** reports Alabama ranked 46th nationally in overall health in 2015. Alabama ranked 41st in public health efforts to manage and control sexually transmitted diseases and 47rd for health care coverage. Infant mortality has increased two percent over the past ten years from 8.5 to 8.7 per 1,000 live births. Alabama ranked twenty-sixth in funding from the CDC, which is indicative of proactive implementation of preventive and educational programs targeted at improving the health of at-risk populations within the state.

The **Alabama Youth Risk Behavior Survey** indicates that less than one-half (46 percent) of high school students (grades 9-12) have had sexual intercourse as of 2009 (Table 25). This represents a drop from 56 percent in 2009. However, 50 percent of sexually active high school students did not use a condom during their last sexual intercourse and 16 percent of all high school students reported they were never taught about HIV infection or AIDS in school. The Alabama School Health Profile states 87% of high schools have policies for HIV-positive students and staff addressing attendance, confidentiality, and procedures to protect against discrimination and 20% high schools have a gay/straight alliance or similar club.

Table 25. High School Youth Risk Behavior Surveillance Survey, Alabama 2015

Sexual Behavior Question	Male (%)	Female (%)	Total (%)
Ever had sexual intercourse?	(49.5)	(43.6)	(46.3)
Had sexual intercourse for the first time before age 13 years?	(10.4)	(3.8)	(6.9)
Had sexual intercourse with four or more persons (during their life)?	(19.5)	(11.7)	(15.4)
Had sexual intercourse with at least one person (during the 3 months before the survey)?	(34.9)	(34.8)	(34.9)
Drank alcohol or used drugs before last sexual intercourse (in sexually active students)?	(22.4)	(22.4)	(17.0)
Did not use a condom during last sexual intercourse (in sexually active students)?	(58.9)	(42.8)	(50.9)
Did not use birth control pills before last sexual intercourse to prevent pregnancy (in sexually active students)?	(12.9)	(24.3)	(18.8)
Were never taught in school about AIDS or HIV infection?	(12.8)	(18.5)	(15.8)
Did not use Depo-Provera before last sexual intercourse (to prevent pregnancy, in sexually active students)?	(95.7)	(88.1)	(91.3)
Did not use birth control pills or Depo-Provera before last sexual intercourse (to prevent pregnancy, in sexually active students)?	(81.6)	(61.0)	(70.4)
Did not use both a condom during last sexual intercourse and birth control pills or Depo-Provera before last sexual intercourse (to prevent	(93.7)	(90.1)	(92.4)

pregnancy, in sexually active students)?

Source: Youth Risk Behavior Surveillance Survey (YRBSS), Alabama 2016.
Note: Percentages may not sum 100% due to rounding.

B. SEXUALLY TRANSMITTED DISEASES

Sexually Transmitted Disease (STD) surveillance data provides a surrogate indicator of high-risk sexual behavior. While an increase in STD occurrences does not directly indicate HIV infections are increasing, these surrogate markers point toward an increase in unprotected sex, a known risk factor for HIV infection. Table 26 compares the STD cases in males and females during 2014 and 2015 and Table 27 depicts STD cases by public health area.

Table 26. Sexually Transmitted Disease Morbidity Comparison by Sex, Alabama 2014 & 2015

	Chlamydia		Gonorrhea		Syphilis		Trichomoniasis	
Sex	**2014**	**2015**	**2014**	**2015**	**2014**	**2015**	**2014**	**2015**
Female	20348	18526	4064	3600	139	80	---	10,659
Male	8196	7550	3542	3530	412	371	---	1,305
Unknown	68	139	20	48	0	0	---	0
Total	28612	26215	7626	7178	551	451	---	11,981

Source: Alabama Department of Public Health, Sexually Transmitted Disease (STD) Division, updated STD Morbidity Calendar Year 2016.

Table 27. Sexually Transmitted Disease Cases by Public Health Area (PHA), Alabama 2015

PHA†	Chlamydia (N=29356), Number (%)	Gonorrhea (N=9042), Number (%)	Syphilis (N=748), Number (%)	Trichomoniasis (N=11,978) Number (%)	STD Total (N=51,224), Number (%)
PHA 1	1232 (4.2)	118 (1.3)	24 (3.2)	622 (5.2)	1,196 (3.9)
PHA 2	3333 (11.4)	877 (97.0)	56 (7.5)	1055 (8.8)	5,421 (10.6)
PHA 3	1903 (6.5)	601 (6.6)	38 (5.1)	739 (6.2)	3,281 (6.4)
PHA 4	5591 (19.0)	2367 (26.2)	238 (31.8)	2,468 (20.6)	10,664 (20.8)
PHA 5	1612 (5.5)	282 (3.1)	37 (4.9)	651 (5.4)	2,582 (5.0)
PHA 6	2032 (6.9)	503 (5.6)	29 (3.9)	1,116 (9.3)	3,680 (7.2)
PHA 7	1455 (5.0)	350 (3.9)	34 (4.5)	762 (6.3)	2,601 (5.1)
PHA 8	5209 (17.7)	1765 (19.5)	99 (13.2)	1,560 (13.0)	8,633 (16.9)
PHA 9	1593 (5.4)	409 (4.5)	73 (9.8)	605 (5.1)	2,680 (5.2)
PHA 10	2223 (7.6)	546 (6.0)	65 (8.7)	1,184 (9.9)	4,018 (7.8)
PHA 11	3173 (10.8)	1224 (13.5)	55 (7.4)	1,216 (10.2)	5,688 (11.1)

Source: Alabama Department of Public Health, Sexually Transmitted Disease (STD) Division, updated STD Morbidity Calendar Year 2016.

Chlamydia

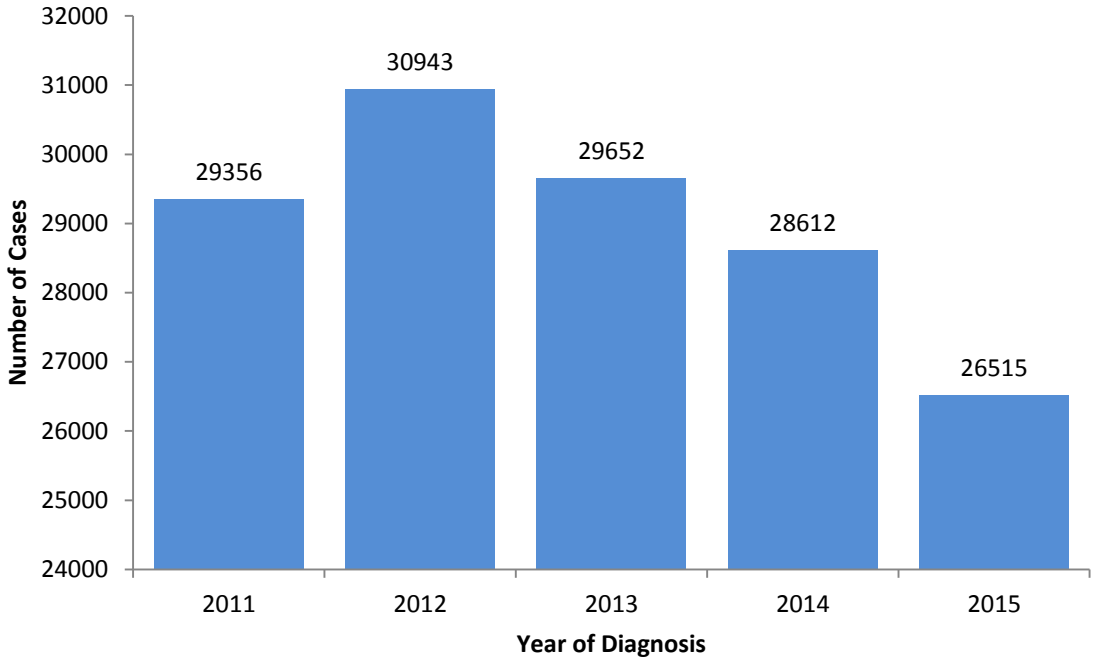
The incidence of Chlamydia is 2.5 times higher in women than men and 2.8 times higher in African Americans than Whites (Table 28). Reported cases of Chlamydia have decreased each year since 2012 (Figure 8).

Table 28. Chlamydia Diagnosis† by Race, Ethnicity and Sex, Alabama 2015

Race	Male (N=7,596), Number (%)	Female (N=18,686), Number (%)	Total (N=26,282) Number (%)
White, not Hispanic	1,267 (16.7)	3,517 (18.8)	4,784 (18.2)
Black, not Hispanic	4,283 (56.4)	9,134 (48.8)	13,417 (51.8)
Hispanic	67 (0.8)	197 (1.1)	264 (1.0)
Other	49 (0.6)	112 (0.6)	161 (0.6)
Unknown	1,930 (25.4)	5,726 (30.6)	7,656 (29.1)

Source: Alabama Department of Public Health, Sexually Transmitted Disease (STD) Division, updated STD Morbidity Calendar Year 2015.
Note: Percentages may not sum 100% due to rounding.

Figure 15. Chlamydia Cases by Year of Diagnosis, Alabama 2011-2015



Source: Alabama Department of Public Health, Sexually Transmitted Disease (STD) Division, updated STD Morbidity Calendar Year 2016.

Gonorrhea

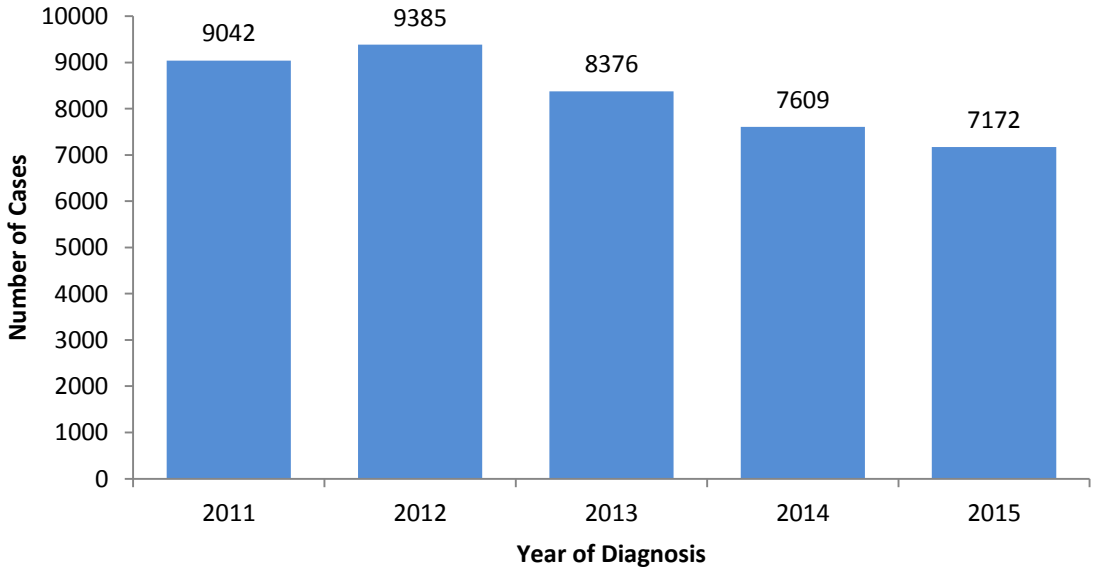
The incidence of gonorrhea is roughly the same in women than men, and approximately five times higher in African Americans than Whites (Table 29). Overall, reported cases of gonorrhea have decreased from 2011 to 2015 (Figure 9).

Table 29. Gonorrhea Diagnosis† by Race/Ethnicity and Sex, Alabama 2015

Race	Male (N=3,542), Number (%)	Female (N=3,630), Number (%)	Total (N=7,172), Number (%)
White, not Hispanic	355 (10.0)	614 (16.9)	969 (13.5)
Black, not Hispanic	2,358 (66.6)	2,160 (59.5)	4,518 (63.0)
Hispanic	15 (0.4)	12 (0.3)	27 (0.4)
Other	25 (0.7)	24 (0.7)	49 (0.7)
Unknown	789 (22.3)	820 (22.6)	1,09 (22.4)

Source: Alabama Department of Public Health, Sexually Transmitted Disease (STD) Division, updated STD Morbidity Calendar Year 2015.
Note: Percentages may not sum 100% due to rounding.

Figure 16. Gonorrhea Cases by Year of Diagnosis, Alabama 2011-2015



Source: Alabama Department of Public Health, Sexually Transmitted Disease (STD) Division, updated STD Morbidity Calendar Year 2016.

Syphilis

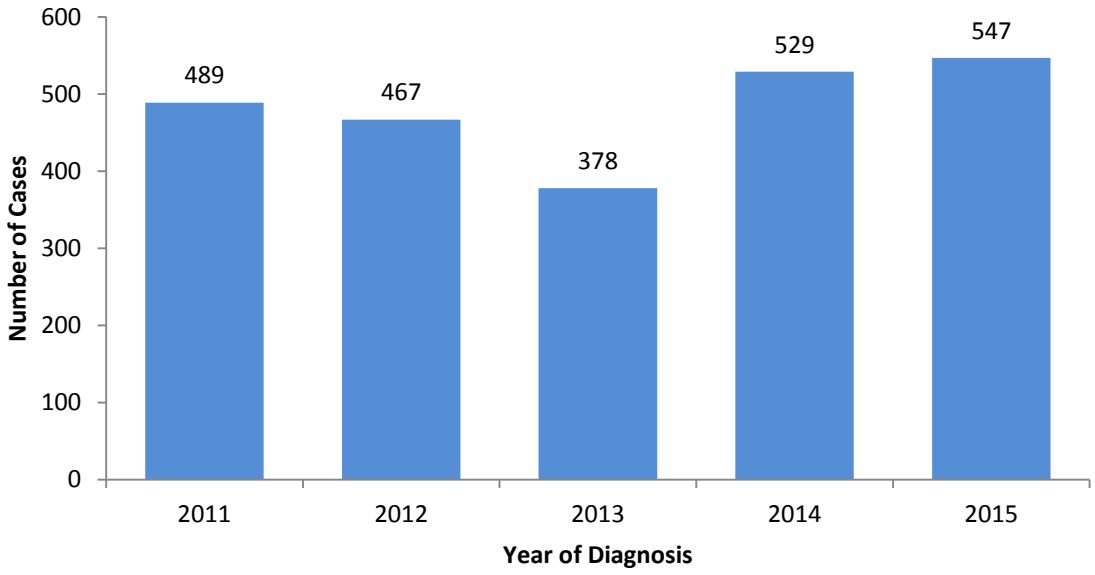
The incidence of syphilis is 3.4 times higher in men than women and three times higher in African Americans than Whites (Table 30). Overall, reported cases of syphilis have fluctuated from 2011 to 2015 with an increase since 2013 (Figure 10).

Table 30. Syphilis Diagnosis by Race/Ethnicity and Sex, Alabama 2015

Race	Male (N=426), Number (%)	Female (N=121), Number (%)	Total (N=547), Number (%)
White, not Hispanic	96 (18.1)	22 (14.6)	118 (17.6)
Black, not Hispanic	273 (52.6)	86 (57.0)	359 (53.6)
Hispanic	11 (2.1)	3 (2.0)	14 (2.1)
Other	5 (1.0)	2 (1.3)	7 (1.0)
Unknown	41 (7.8)	8(5.3)	49 (7.3)

Source: Alabama Department of Public Health, Sexually Transmitted Disease (STD) Division, updated STD Morbidity Calendar Year 2016.
Note: Percentages may not sum 100% due to rounding.

Figure 17. Syphilis Cases by Years of Diagnosis, Alabama 2011-2015

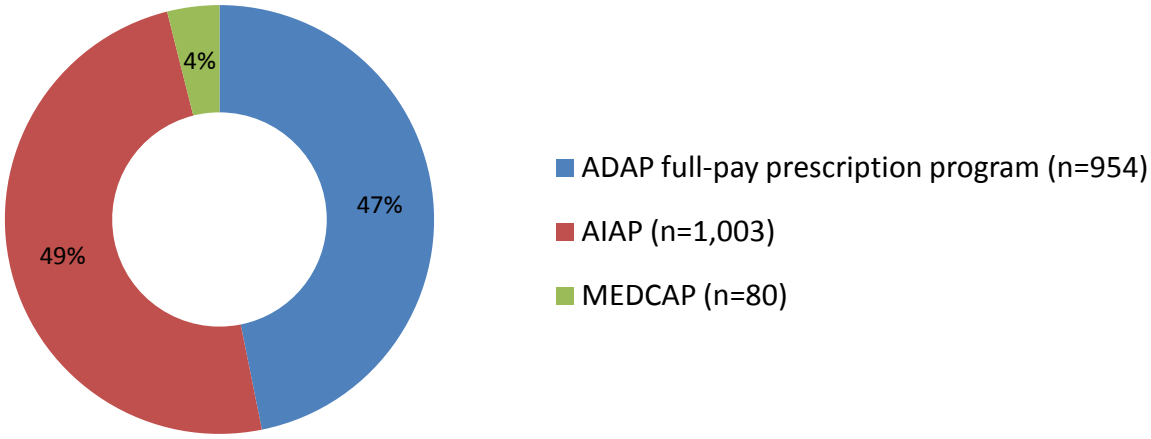


Source: Alabama Department of Public Health, Sexually Transmitted Disease (STD) Division, updated STD Morbidity Calendar Year 2016.

IV. PATTERNS OF UTILIZATION OF HIV SERVICES

Alabama's AIDS Drug Assistance Program (ADAP) provides continuous access to life-saving treatment and care for low income, uninsured, and underinsured people living with HIV (PLWH). Alabama's Insurance Assistance Program (AIAP) was launched in 2015, providing cost-effective health insurance to eligible PLWH. ADAP is comprised of two main components: 1) the full price purchase of medications and 2) the purchase of cost-effective insurance coverage through AIAP on behalf of eligible individuals. Premium, co-payment, and out of pocket expense assistance is also provided for eligible individuals receiving coverage through the Medicare Part D Client Assistance Program (MEDCAP). These ADAP categories are intended to reduce the morbidity and mortality experienced by PLWH, while also assisting PLWH achieve and maintain viral suppression, thus decreasing the risk of HIV transmission to non-infected individuals. The Ryan White HIV/AIDS Program (RWHAP) Part B funding is intended to provide seamless care and support across the HIV care continuum. The percentage of ADAP clients served by each program category is depicted in Figure 18.

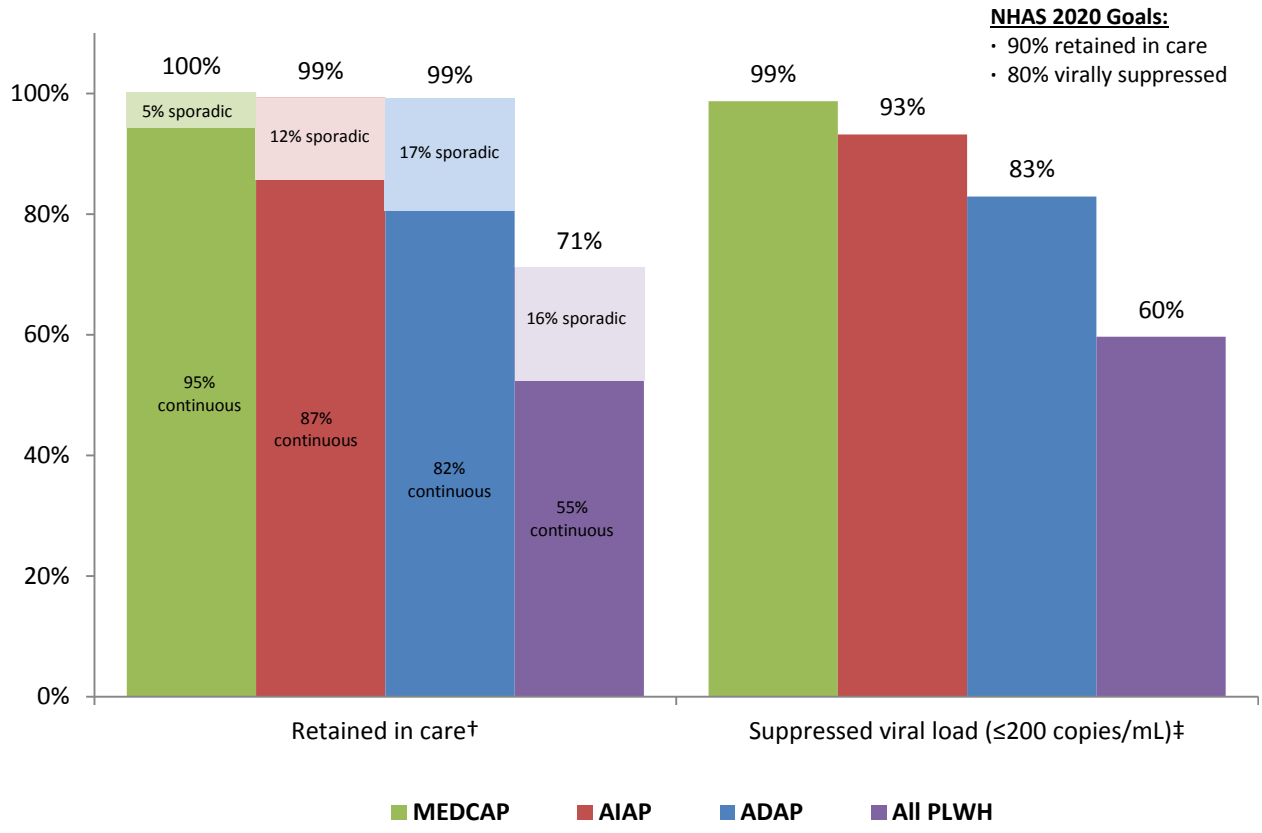
Figure 18. ADAP Clients Served by Program Category, December 2015



Sources: Alabama Department of Public Health, Division of HIV Prevention and Care
Abbreviations: ADAP – AIDS Drug Assistance Program; AIAP – Alabama Insurance Assistance Program; MEDCAP – Medicare Part D Client Assistance Program. Percentages may not total 100% due to rounding.

The ADAP plays an integral role in the achievement of the National HIV/AIDS Strategy (NHAS) updated goals for 2020, which include: 1) reducing new HIV infections; 2) increasing access to care and improving health outcomes; and 3) reducing HIV-related disparities and health inequities. ADAP has a measurable impact on multiple bars of the HIV care continuum, most notably retention in care and viral load suppression. Being virally suppressed improves the health of PLWH and enhances their lifespan, while also significantly reducing the risk of transmitting HIV to others. PLWH who adhere to antiretroviral therapy (ART) and have suppressed viral loads can reduce the risk of sexual transmission of HIV by 96 percent. ADAP clients achieve optimal health outcomes at a higher rate than all PLWH in Alabama. In fact, ADAP, AIAP, and MEDCAP clients have already surpassed NHAS 2020 goals for 80 percent viral suppression and have either surpassed or are approaching 90 percent continuous retention in HIV medical care (Figure 19).

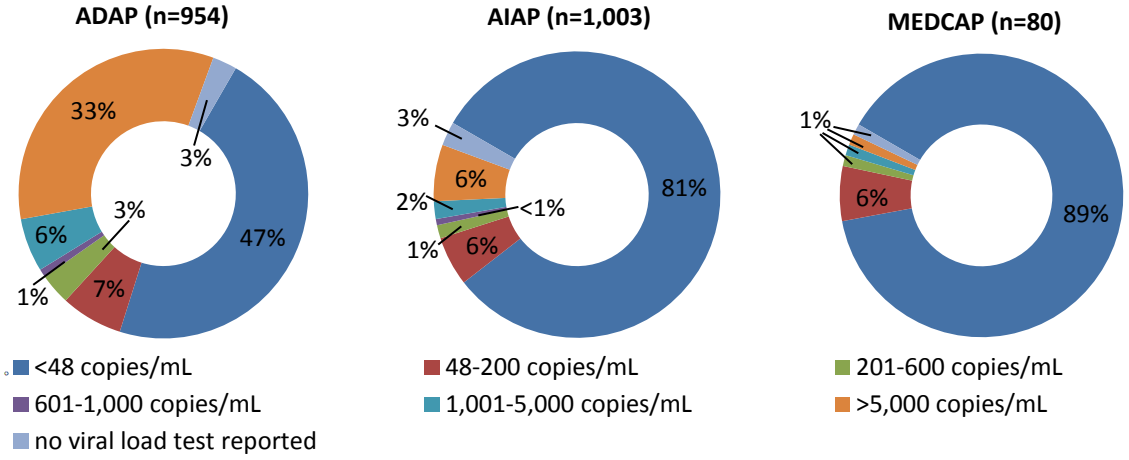
Figure 19. Retention in Care and Viral Suppression Among PLWH, Alabama, 2015



Sources: Alabama Department of Public Health, Division of HIV Prevention and Care; Centers for Disease Control and Prevention, HIV Surveillance Supplemental Report, 2014;19 (No. 3).
Abbreviations: ADAP – AIDS Drug Assistance Program; AIAP – Alabama Insurance Assistance Program; MEDCAP – Medicare Part D Client Assistance Program; NHAS – National HIV/AIDS Strategy; PLWH – all persons living with HIV (including ADAP, AIAP, and MEDCAP clients). Calculations include persons diagnosed with HIV infection through December 31, 2014 and alive as of December 31, 2015, allowing a full 12 months to assess retention in care and viral suppression.
† Calculated as the percentage of persons accessing care during 2015, among those diagnosed with HIV through December 31, 2014 and alive as of December 31, 2015. Sporadic care is evidenced by only 1 CD4 or viral load test while continuous care is evidenced by ≥2 CD4 and/or viral load tests collected at least 90 days apart.
‡Calculated as the percentage of persons who had suppressed viral load (≤200 copies/mL) during 2015, among those diagnosed with HIV through December 31, 2014 and alive as of December 31, 2015.

Stratification by program category reveals the majority of clients actively served by ADAP in December 2015 reported viral suppression at the last viral load test during 2015 (Figure 20). However, the level of viral suppression varied by service category with MEDCAP clients reporting the greatest percentage of viral suppression (95 percent), followed by AIAP clients (87 percent) and ADAP clients (53 percent). As only 53 percent of active ADAP clients reported viral suppression at their last viral load test during 2015, this indicates a need for improved adherence to antiretroviral therapy (ART) and retention in care in this service category. Ensuring ADAP clients recertify during federally required biannual eligibility assessments will ensure continuity of care and access to ART.

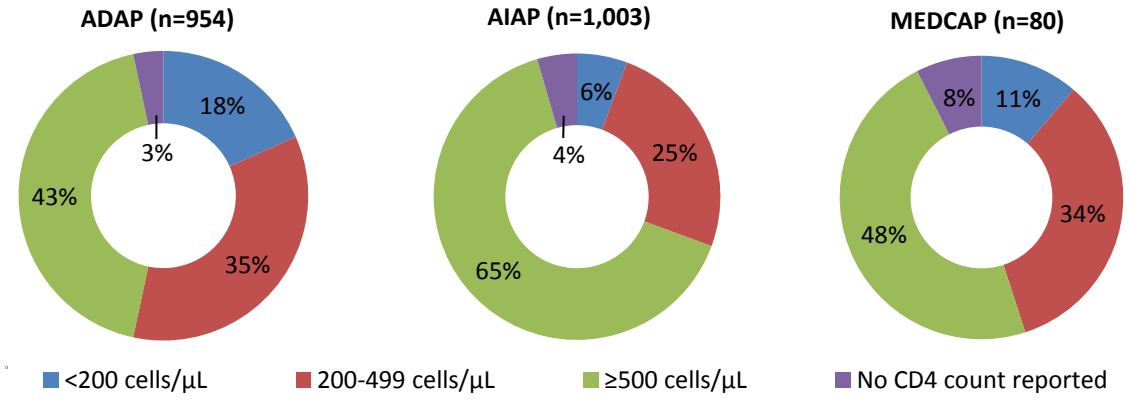
Figure 20. Viral Load Range at Last Reported Test by Service Category, Alabama 2015



Sources: Alabama Department of Public Health, Division of HIV Prevention and Care
Abbreviations: ADAP – AIDS Drug Assistance Program; AIAP – Alabama Insurance Assistance Program; MEDCAP – Medicare Part D Client Assistance Program. Percentages may not total 100% due to rounding.

In addition to viral load suppression, improved access to care and treatment is associated with increased CD4 counts and reduction in progression of AIDS. Stratification by program category reveals the majority of clients actively served by ADAP in December 2015 reported non-AIDS defining CD4 counts (i.e., CD4 ≥200 cells/µL) during 2015 (Figure 21).

Figure 21. CD4 Count Range at Last Reported Test by Service Category, Alabama 2015

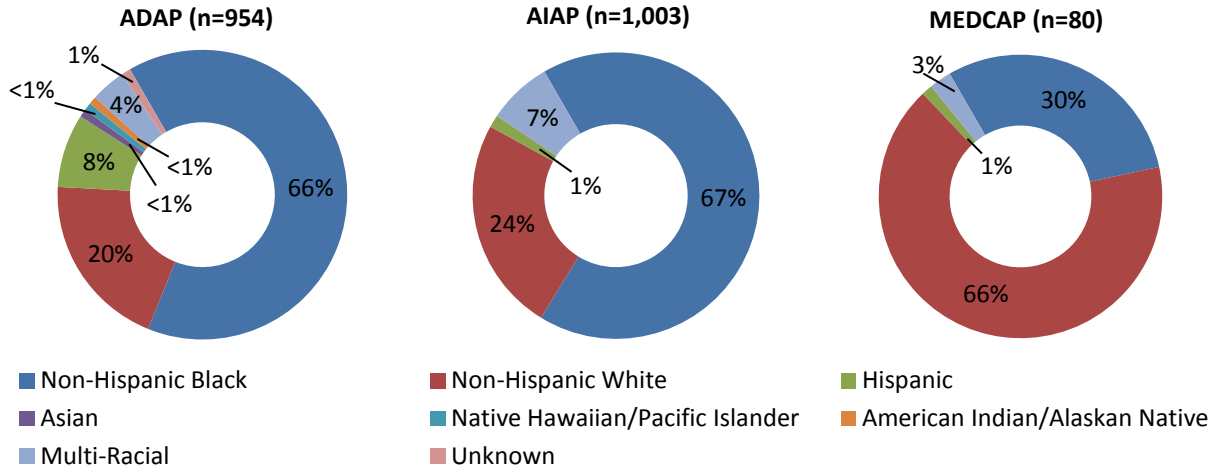


Sources: Alabama Department of Public Health, Division of HIV Prevention and Care
Abbreviations: ADAP – AIDS Drug Assistance Program; AIAP – Alabama Insurance Assistance Program; MEDCAP – Medicare Part D Client Assistance Program. Percentages may not total 100% due to rounding.

Racial and ethnic differences are seen when stratifying by program category. While the majority of ADAP and AIAP clients are African American, the majority of MEDCAP clients are White (Figure 22). This suggests an under utilization of MEDCAP among African Americans. HIV Surveillance statistics indicate African Americans continue to be disproportionately affected by HIV in Alabama. While African Americans comprise only 27 percent of Alabama's population,

they represent 70 percent of newly diagnosed infections in current years and 65 percent of all persons living with HIV in Alabama.

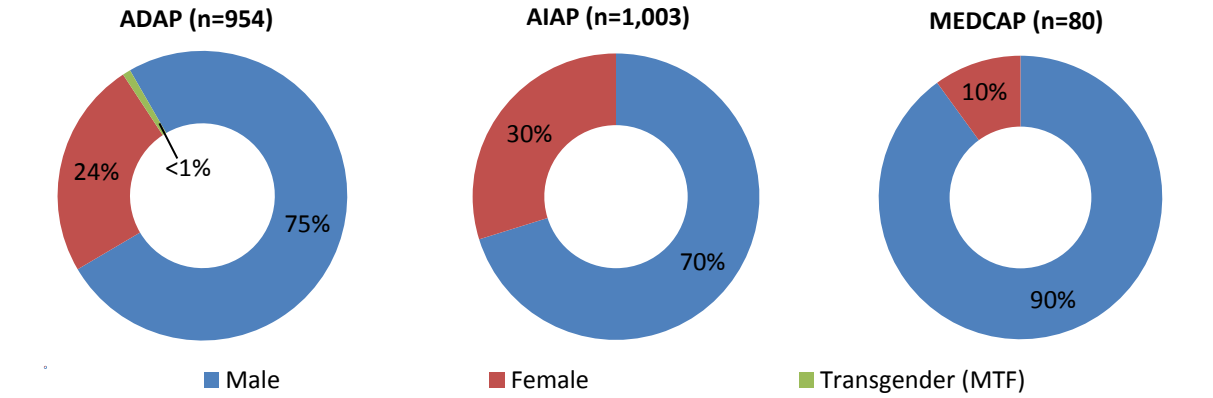
Figure 22. Race/Ethnicity of ADAP Clients Served by Program Category, December 2015



Sources: Alabama Department of Public Health, Division of HIV Prevention and Care
Abbreviations: ADAP – AIDS Drug Assistance Program; AIAP – Alabama Insurance Assistance Program; MEDCAP – Medicare Part D Client Assistance Program. Percentages may not total 100% due to rounding.

Stratification by gender reveals the majority of clients reporting male birth sex and current gender identity across program categories (Figure 23). In Alabama, approximately 72 percent of all persons living with HIV infection were male at the end of 2015. It is important to note that two ADAP clients identify as male-to-female transgender.

Figure 23. Gender of ADAP Clients Served by Program Category, December 2015

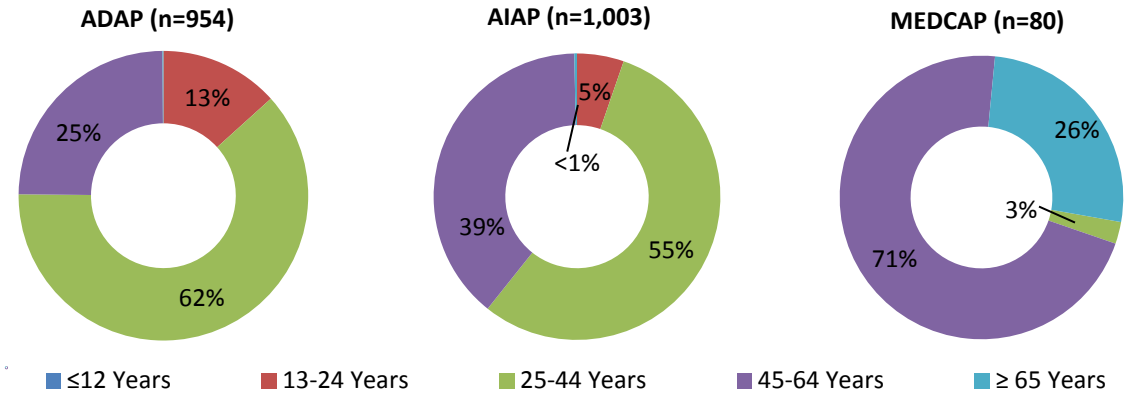


Sources: Alabama Department of Public Health, Division of HIV Prevention and Care
Abbreviations: ADAP – AIDS Drug Assistance Program; AIAP – Alabama Insurance Assistance Program; MEDCAP – Medicare Part D Client Assistance Program. Percentages may not total 100% due to rounding.

While the majority of ADAP and AIAP clients served in December 2015 were 25 to 44 years old, a larger percentage of 45 to 64 years olds utilized AIAP compared to ADAP (Figure 24). MEDCAP clients represent an older population, with the majority of clients between 46 and 64 years followed by individuals age 65 or older. During December 2015, no clients served by ADAP, AIAP, or MEDCAP were 12 years old or younger. By law, the Ryan White HIV/AIDS

Program (including ADAP) must be the payer of last resort. Children of low income families are able to obtain healthcare coverage through Alabama's Medicaid and AllKids insurance programs.

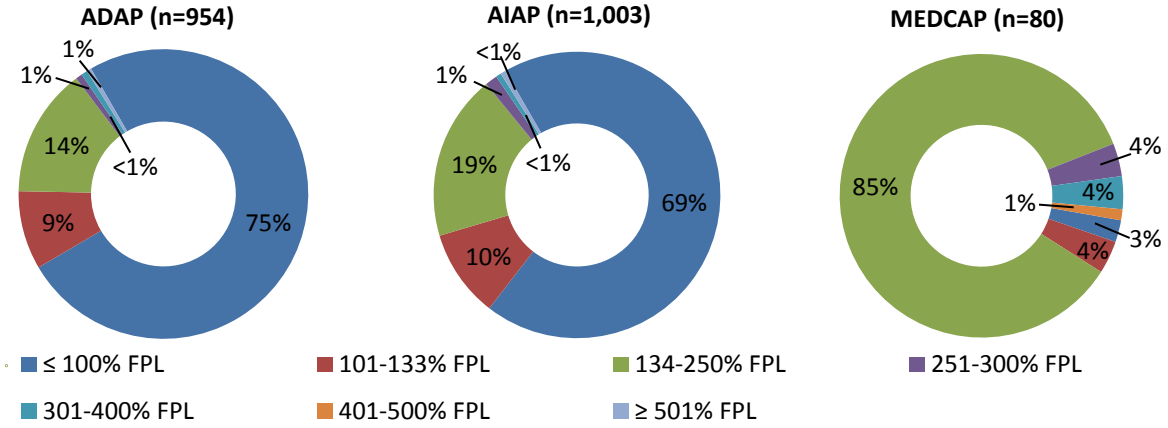
Figure 24. Age of ADAP Clients Served by Program Category, December 2015



Sources: Alabama Department of Public Health, Division of HIV Prevention and Care
Abbreviations: ADAP – AIDS Drug Assistance Program; AIAP – Alabama Insurance Assistance Program; MEDCAP – Medicare Part D Client Assistance Program. Age as of December 31, 2015. Percentages may not total 100% due to rounding.

During 2015, income eligibility criteria for ADAP, AIAP, and MEDCAP were set at 250 percent of the federal poverty level (FPL). Beginning in 2016, Alabama expanded the income eligibility level across all programs to 300 percent FPL. The income level of ADAP, AIAP, and MEDCAP clients served in December 2015 is shown in Figure 2. While the majority of ADAP and AIAP clients at or below 100 percent of the FPL, the majority of MEDCAP clients are between 134 to 250 percent of the FPL.

Figure 25. ADAP Clients Served by Income Level and Program Category, December 2015



Sources: Alabama Department of Public Health, Division of HIV Prevention and Care
Abbreviations: ADAP - AIDS Drug Assistance Program; AIAP - Alabama Insurance Assistance Program; FPL - Federal Poverty Level; MEDCAP - Medicare Part D Client Assistance Program. Percentages may not total 100% due to rounding.

For more information about Alabama's AIDS Drug Assistance Program, including eligibility requirements and a current list of all formulary medications covered by ADAP, please visit http://adph.org/aids

CONCLUSION

The Integrated Epidemiologic Profile provides guidance for HIV prevention and control efforts by identifying target populations infected with HIV and at risk of HIV infection. Alabama's HIV-positive population is growing, partially due to awareness via expanded rapid testing and opt-out routine testing and partially due to effective treatment options increasing the longevity of people living with HIV. The African American community bears the brunt of the disease, making up 70 percent of prevalent HIV cases and 71 percent of newly diagnosed HIV infections in Alabama. Recent trends suggest a shift in the epidemic from men who have sex with men toward heterosexual contact.

Despite the many challenges facing Alabama in regards to its health status and the increasing trends in new HIV infections, opportunities to improve access to care and services for Alabamians living with HIV infection exist. Expanding access to screening and prevention services may decrease new infection rates throughout Alabama. Improved access to HIV services can be sustained through collaborative partnerships with Community-based Organizations, Primary Care Clinics, and Community Health Centers as well as through state and national policy changes being implemented in preparation for the full health care reform.

HIV/AIDS Integrated Epidemiological Profile

Prepared by staff of
Division of STD Prevention & Control,
HIV Surveillance Branch

And
Division of HIV Prevention & Care,
Direct Care Management Services Branch

Both Divisions of the Alabama Department of Public Health

For additional information contact:
Richard P. Rogers, MS, MPH
Richard.Rogers@adph.state.al.us or 334.206.5350

DATA SOURCES

Data was compiled from a variety of sources. Anyone citing or interpreting data should acknowledge all data sources have strengths and limitations.

America's Health Rankings
The United Health Foundation partners with the American Public Health Association and Partnership for Prevention to publish America's Health Rankings, which provide the longest running state-by-state analysis of the nation's health.

AlabamaPossible (Alabama Poverty Sheet) This data source was supplied by the Auburn University at Montgomery (AUM) Center for Demographic Research. conducts high quality research on population topics and provides demographic data, research results, and guidance to Alabama's citizens, businesses, non-profit organizations, and public agencies.

Birth and Death Data
The ADPH Center for Health Statistics receives information on all births and deaths occurring in Alabama. Birth certificates include demographic information about the newborn and parents, including insurance status, prenatal care, prenatal risk factors, maternal morbidity, mode of delivery, pregnancy history, and clinical characteristics of the newborn. Death certificates include demographics, underlying cause of death, and contribution of selected factors to death. The data can be used to determine the number of deaths related to HIV across the state or in a specific area. Deaths resulting from AIDS or whose underlying cause was HIV infection may be under reported on a death certificate. Clinical information related to HIV status may be missing.

Direct Care Update Report
The ADPH HIV/AIDS Direct Care and Services Branch oversees Alabama's Ryan White Part B program activities, including medical and social services, medical and non-medical case management, and Alabama's AIDS Drug Assistance Program (ADAP). Alabama's HIV care and service providers apply for Ryan White funding through the ADPH to provide defined core medical and support services to the HIV positive patient population. ADAP's goal is to reduce associated morbidity and mortality among HIV infected persons by delaying the progression of HIV disease through prevention and treatment.

HIV Surveillance Data
The Alabama Department of Public Health (ADPH) has been collecting confidential AIDS and HIV information since 1982 and 1987, respectively. Standardized case report forms are used to collect socio-demographic information, mode of exposure, laboratory and clinical information and vital statistics. HIV data may underestimate the number of recently infected individuals as many people have not been tested and are unaware of their status. In addition, newly diagnosed cases may be reported to the health department at any point during the clinical spectrum of disease. Therefore, HIV surveillance data provides an estimate of the number of persons known to be infected with HIV.

Kaiser Family Foundation

The Kaiser Family Foundation is a non-profit, private operating foundation focusing on the major health care issues facing the United States, as well as the nation's role in global health policy. The Foundation serves as a non-partisan source of facts, information, and analysis for policymakers, the media, the health care community, and the public. The Foundation provides free, up-to-date, and easy-to-use health data for all 50 states. The Foundation is not associated with Kaiser Permanente or Kaiser Industries.

Sexually Transmitted Disease (STD) Case Reporting

The ADPH Division of STD Control conducts statewide surveillance to determine the number of reported STD cases and monitor trends. Services provided include partner counseling and notification, referral services for examination, treatment, and social services. STD data are widely available at the state and local level and serve as a surrogate marker for unsafe sexual practices and demonstrate the prevalence of changes in specific behaviors because of shorter incubation periods between exposure and infection. Chancroid, Chlamydia, gonorrhea, HIV, and syphilis are reportable STDs in Alabama. Certain STDs (e.g., ulcerative STDs) can facilitate the transmission or acquisition of HIV infection. Changes in STD trends may indicate changes in characteristics of persons who delay testing, or who are not tested at all.

United States Census Bureau

The Census Bureau collects and provides information about the people and economy of the United States. The Census Bureau's website (http://www.census.gov/) includes data on demographic characteristics of the population, family structure, educational attainment, income level, housing status, and the proportion of persons who live at or below the federal poverty level. State and county-specific data (e.g. reports on population changes) are easily accessible, and links to other websites with census information are included.

Youth Risk Behavior Surveillance Survey (YRBSS)

The Youth Risk Behavior Surveillance Survey (YRBSS) is a self-administered questionnaire given every two years to a representative sample of high school students (grades 9 to 12) at state and local levels. In Alabama, the survey is administered at the state level and includes questions related to sexual behavior and drug use. The YRBSS is a standardized questionnaire, so comparisons can be made across participating jurisdictions. Jurisdictions have the ability to add questions of local interest. A limitation of the YRBSS project is the potential for under or over reporting as the survey relies upon self-reported information. Another limitation is data are representative only of adolescents enrolled in school and cannot be generalized to all adolescents. A third limitation significant to HIV risk factor assessment is that the survey does not include questions about homosexual or bisexual behavior.

C. Financial and Human Resources Inventory

Name of Contractor	Street Address	City	State	Zip Code	Phone Number	EIN (Employer ID Number)	Core Medical Services(What is listed in their budget)	Support Services	Service Type-Codes	Amount of Contract
Health Services Center	608 Martin Luther King Drive	Hobson City	AL	36201	256-832-0100	63-0993592	Outpatient/Ambulatory Health Services; Oral Health Care; Health Insurance Premium and Cost Sharing; Mental Health Services	Medical Transportation Services	1a,1d, 1f, 1j, 2i	$283,700.00
Health Services Center EC	608 Martin Luther King Drive	Hobson City	AL	36201	256-832-0100	63-0993592	Outpatient/Ambulatory Health Services; Oral Health Care	N/A	1a, 1d	$5,242.00
Birmingham AIDS Outreach	205 32nd Street South #101	Birmingham	AL	35233	205-322-4197	63-0948495	Mental Health Services	Case Management (Non-Medical); Emergency Financial Assistance; Food Bank/Home-Delivered Meals; Legal Services; Medical Transportation Services	1j, 2a, 2c, 2d, 2g, 2i	$287,550.00
Birmingham AIDS Outreach EC	205 32nd Street South #101	Birmingham	AL	35233	205-322-4197	63-0948495	AIDS Pharmaceutical Assistance (local); Mental Health Services	Case Management (Non-Medical); Emergency Financial Assistance; Food Bank/Home Delivered Meals; Legal Services; Medical Transportation Services	1b, 1j, 2a, 2c, 2d, 2g, 2i	$126,426.00
AIDS Alabama	3521 7th Avenue South	Birmingham	AL	35222	205-324-9822	58-1727755	Health Insurance Premium & Cost Sharing Assistance; Mental Health Services; Substance Abuse Services-Outpatient	Case Management (Non-Medical); Emergency Financial Assistance	1f, 1j, 1m, 2a, 2c	$287,550.00

Name of Contractor	Street Address	City	State	Zip Code	Phone Number	EIN (Employer ID Number)	Core Medical Services(What is listed in their budget)	Support Services	Service Type-Codes	Amount of Contract
AIDS Alabama EC	3521 7th Avenue South	Birmingham	AL	35222	205-324-9822	58-1727755	Mental Health Services	Case Management (Non-Medical); Emergency Financial Assistance, Psychosocial Support Services	1j, 2a, 2c, 2k	$104,472.00
UAB 1917 Clinic	908 20th Street South	Birmingham	AL	35294	205-934-1917	63-0649108	Outpatient/Ambulatory Health Services; Oral Health Care; Mental Health Services	N/A	1a, 1d, 1j	$828,000.00
UAB 1917 Clinic EC	908 20th Street South	Birmingham	AL	35294	205-934-1917	63-0649108	Outpatient/Ambulatory Health Services	N/A	1a	$0.00
UAB Family Clinic	1600 5th Avenue South, CPPI-G20	Birmingham	AL	35233	205-638-2337	1636005396A6	Outpatient/Ambulatory Health Services; AIDS Pharmaceutical Assistance (local); Oral Health Care; Early Intervention Services; Medical Case Management (including Treatment Adherence)	Case Management (Non-Medical); Health Education/Risk Reduction; Referral for Health Care/Supportive Services	1a, 1b, 1d, 1e, 1l, 2a, 2e, 2l	$183,250.00
AIDS Action Coalition	600 St. Clair Avenue, Bldg 3	Huntsville	AL	35801	256-536-4700	57-0889447	Outpatient/Ambulatory Health Services; Oral Health Care; Medical Case Management (including Treatment Adherence)	Case Management (Non-Medical); Linguistics Services; Medical Transportation Services	1a, 1d, 1l, 2a, 2h, 2i	$520,000.00
USA Family Clinic	1504 Springhill Avenue, Room 5225	Mobile	AL	36604	251-405-5344	63-0725648	Outpatient/Ambulatory Health Services; Oral Health Care	Medical Transportation Services	1a, 1d, 2i	$134,285.00
Medical AIDS Outreach	2900 McGhee Road	Montgomery	AL	36111	334-280-3349	63-0959628	Outpatient/Ambulatory Health Services; Oral Health Care; Early Intervention Services; Health Insurance Premium and Cost Sharing; Medical Case Management (including Treatment Adherence)	Case Management (Non-Medical); Emergency Financial Assistance; Food Bank/ Home-Delivered Meals; Health Education/Risk Reduction	1a, 1d, 1e, 1f, 1l, 2a, 2c, 2d, 2e	$904,000.00

Name of Contractor	Street Address	City	State	Zip Code	Phone Number	EIN (Employer ID Number)	Core Medical Services(What is listed in their budget)	Support Services	Service Type-Codes	Amount of Contract
Unity Wellness Center	122 N20th St Bldg #26	Auburn	AL	3608	334-749-3593	26-3644553	Outpatient/Ambulatory Health Services; Mental Health Services; Medical Case Management (including Treatment Adherence)	Medical Transportation Services	1a, 1j, 1l, 2e	$206,150.00
Mobile County Health Dept	251 North Bayou Street	Mobile	AL	36603	251-690-8153	63-6001641	Outpatient/Ambulatory Health Services; Oral Health Care; Early Intervention Services; Mental Health Services; Substance Abuse Services-Outpatient	Health Education/Risk Reduction	1a, 1d, 1e, 1j, 1m, 2e	$700,000.00
AIDS Alabama South	2054 Dauphin Street	Mobile	AL	36606	251-471-5277	46-2661900	Oral Health Care; Health Insurance Premium and Cost Sharing	Case Management (Non-Medical); Emergency Financial Assistance; Food Bank/Home-Delivered Meals; Medical Transportation Services	1d, 1f, 2a, 2c, 2d, 2i	$280,000.00
Selma AIR	102 Park Place	Selma	AL	36701	334-872-6795	63-1133272	Oral Health Care; Medical Case Management (including Treatment Adherence)	Case Management (Non-Medical); Food Bank/Home-Delivered Meals; Psychosocial Support Services	1d, 1l, 2a, 2d, 2k	$190,500.00

Name of Contractor	Street Address	City	State	Zip Code	Phone Number	EIN (Employer ID Number)	Core Medical Services(What is listed in their budget)	Support Services	Service Type-Codes	Amount of Contract
Franklin Primary Health	1303 Dr. Martin Luther King Jr Avenue	Mobile	AL	36603	251-432-4117	63-0695975	Outpatient/Ambulatory Health Services; AIDS Pharmaceutical Assistance (local); Health Insurance Premium and Cost Sharing; Mental Health Services; Medical Nutrition Therapy; Medical Case Management (including Treatment Adherence); Substance Abuse Services-Outpatient	N/A	1a, 1b, 1f, 1j, 1k, 1l, 1m	$250,000.00
West Alabama AIDS Outreach	2720 6th Street #100	Tuscaloosa	AL	35401	205-759-8470	63-0995963	Medical Case Management (including Treatment Adherence)	Case Management (Non-Medical); Emergency Financial Assistance; Food Bank/Home-Delivered Meals; Medical Transportation Services; Psychosocial Support Services	1l, 2a, 2c, 2d, 2i, 2k	$190,500.00
Whatley Health Services	2731 Martin Luther King Jr Boulevard	Tuscaloosa	AL	35401	205-758-6647	63-0727781	Outpatient/Ambulatory Health Services; Oral Health Care; Health Insurance Premium and Cost Sharing; Mental Health Services; Medical Nutrition Therapy	Emergency Financial Assistance; Health Education/Risk Reduction; Medical Transportation Services; Treatment Adherence Counseling	1a, 1d, 1f, 1j, 1k, 2c, 2e, 2i, 2p	$225,000.00

b. Provide a narrative description of the HIV Workforce Capacity in the jurisdiction and how it impacts the HIV prevention and care services delivery system. The jurisdiction must define the workforce (e.g. licensed providers, community health workers, paraprofessionals) as applicable to the jurisdiction.

The Division funds eleven clinics and five AIDS Service Organizations (ASO) to provide medical care and support services through Ryan White. Through CDC funding the Division supports six AIDS Service Organizations to provide testing, and evidence based interventions, and eighteen HIV testing sites to provide HIV testing, linkage coordination and support services. The Division funds one Emergency Medical Department (ED) to provide routine HIV testing and linkage services to patients entering the ED. The Division is funding the expansion of tele-health services in Alabama to provide better client access to treatment, pharmaceutical, counseling and support services in underserved counties. In collaboration with Medical AIDS Outreach the ADPH HIV Prevention and Care has expanded tele-health services to 14 primarily rural sites across the state as of May 2016. The tele-health expansion includes collaboration with the University of Alabama School of Public Health and Auburn University. The universities offer tele-health training in the HIV clinics/hub sites to interns pursuing medical and pharmaceutical degrees.

Rough estimates of the treatment and prevention workforce includes; 11 physicians, 1 physician assistant, 7 nurse practitioners, 13 nurses, 53 social workers/case managers, 1 pharmacist, 1 pharmacy tech, 1 counselor, 15 peer advocates. There is also a host of additional staff that includes Directors, Administrative Assistants, physician and pharmacist interns, transportation drivers, and volunteers. The aforementioned list of treatment and prevention providers is supported by 12 physicians in private practice that are used for direct referrals on an ongoing basis. This listing is tenuous at best. This is a forever changing field of employment.

c. Provide a narrative description of how different funding sources interact to ensure continuity of HIV prevention, care and treatment services in the jurisdiction.

The Alabama Department of Health (ADPH), as the State's Ryan White Part B (RWPB) grantee, allocates funding to care and service providers in all areas of the State based on a formula using the number of persons reported as infected in their service area. ADAP Earmark and Supplemental funding will support the State's AIDS Drug Assistance Program (ADAP) in FY 2016 to provide expanded health care and medication services for HIV positive residents. The Emerging Communities (EC) funding will be used in FY 2016 to augment current state, private, and federal funds in the provision of core medical and support services for eligible HIV positive Alabama residents whose total gross household income is less than 300% of the current year's federal poverty level (FPL) or 250% of the FPL to enroll in Alabama's ADAP and are not enrolled or eligible to enroll in a third party payer source to provide needed services also provided through Ryan White Part B (RWPB) funding.

The Division will continue to fund AIDS Service and Community Based Organizations (9) statewide to provide Post Test Education. This is a state funded initiative. Services include prevention education, risk reduction, linkage and referral services for HIV positive clients and high risk negative individuals statewide. Continued funding for Linkage Specialists (six individuals living with HIV) that provide linkage and coordination of services for persons living with HIV and high risk negative individuals. Continuation of funding to the University of Alabama at Birmingham (UAB) Hospital Emergency Department (ED) which is the only ED in the state offering routine opt out HIV testing to all ED patients, with limited access to trauma patients. The project is a major success for Alabama. In 2013 UAB-ED began HIV testing patients in two Trauma units in addition to the standard ED patients. Partner Services will be performed by health department Disease Intervention Specialists who work closely with all of the AIDS Service and Community Based Organizations (ASO/CBO). Currently Partner Services is provided only by the STD Division. Continuation of funding for six organizations providing services to HIV positive and high risk negative individuals that include the use of evidence based interventions. The projects offer HIV testing to high risk populations and linkage and coordination services for HIV positive clients that include ADAP. Approximately 4 ASO are directly funded through CDC and or SAMHSA

Additional funding and services in the jurisdiction include Medicaid, Poarch Creek Indians, Federally Qualified Health Clinics, Infectious Disease Physicians in Private Practice, State Department of Mental Health and Substance Abuse, and the Department of Corrections.

d. Provide a narrative description identifying any needed resources and or services in the jurisdiction which are not being provided, and steps taken to secure them.

The needed resources for the jurisdiction are listed in the 2016 AIDS Needs Assessment, pages 3 – 10 of Appendix A. The steps taken to secure the services are listed in Section II Part A.

D. Assessing Needs, Gaps, and Barriers

a. Describe the process used to identify HIV prevention and care service needs of people at higher risk for HIV and PLWH (diagnosed and undiagnosed); this process description should include how various strategies were used to target, recruit, and retain participants in the HIV planning process that represent the myriad of HIV-infected populations and persons at higher risk for HIV infection, other key stakeholders in HIV prevention, care, and related services, and organizations that can best inform and support the development of the implementation of the Integrated HIV Prevention and Care Plan.

The Alabama Department of Public Health Division of HIV Prevention and Care partnered with the University of Alabama at Birmingham School of Public Health to conduct a statewide, multi-method needs assessment with the goals of 1) identifying and describing HIV prevention and care services that currently exist and those that are needed; 2) enhancing the quality of services for persons at higher risk for HIV and PLWH and 3) identifying barriers that impede access to existing services.
Data Collection: in coordination with ADPH division of HIV Prevention and Care, the UAB School of Public Health project team conducted a series of focus groups and distributed surveys to solicit information the prevention and care service needs of PLWH and persons at risk for HIV, service gaps identified by PLWH and persons at risk for HIV, and barriers to prevention and care services. The following methods were used:

- Developing and conducting a statewide electronic survey that will reach prevention and direct care staff including physicians, nurses, social workers, case managers, and other working in direct patient care;
- Conducting focus groups in conjunction with the Prevention and Care Collaborative Meeting;
- Conducting focus groups with HIV support groups in selected public health areas;
- Conducting focus groups with selected CBO's support groups; for example the project previously known as Project Elite, currently known as the Hub; Latino support groups, and the statewide Alabama Consumer Advisory Board; and
- Working with UAB 1917 Clinic, Prevention Initiative to collect information from persons at risk for HIV.

Once the findings from the Needs Assessment were completed, the HIV Prevention and Care Group convened to put together a Work Plan based on the findings. Participants included HIV Prevention Coordinators, Direct Care staff, members from statewide ASO's and CBO's, and members from the Alabama Consumer Advisory Board which is made up of People Living with HIV/AIDS.

b. Describe the HIV prevention and care *service needs* of persons at risk for HIV and PLWH.
In Alabama, there are sixty – seven local county health departments, all which offer free HIV testing. Through the Alabama Bureau of Clinical Laboratories (BCL) all health departments use the 4th Generation test. Once a patient receives a preliminary positive reading, a confirmatory blood test is then conducted. Clients who meet the state guidelines or eligibility criteria have the option to apply for the AIDS Drug Assistance Program (ADAP) or the Insurance Program. The purpose of the ADAP program is to reduce associated morbidity/mortality among HIV infected persons by delaying the progression of HIV disease through prevention and treatment of HIV complications. Within the State of Alabama, there

are 15 Ryan White providers/clinics that offer free Ryan White services. Services include clinic outpatient services, counseling services, mental health, housing, and transportation just to name a few.

c. Describe the *service gaps (i.e., prevention, care and treatment, and necessary support services e.g. housing assistance and support) identified by and for persons at higher risk for HIV and PLWH.*

In order to gain a better understanding of the needs of people living with HIV/AIDS who may not be currently receiving HIV/AIDS-related medical care, survey respondents were asked to tell about their experiences if they had ever been without care for a period of at least twelve (12) months. Thirty-one (31) of the 194 respondents (16%) indicated they had been HIV+ for at least two (2) years and had gone through a period of at least 12 months where they did not receive HIV/AIDS-related care. The following describes the results of a series of questions designed to learn more about their situation during their gap in service:

Q: What best describes your situation during this gap in service? (n=27)

- Recently been diagnosed with care and had not entered HIV/AIDS-related care (37%, n=10)
- Receiving HIV/AIDS-related medical care, but stopped going (33%, n=9)
- Did not have access to care (15%, n=4)
- Other (15%, n=4): moved; new to the area and didn't know services existed; didn't know where to go; and dealing with life-stress.

When asked about what kept them from receiving care during their gap in service, the most frequent responses included timing ("I wasn't ready to deal with my HIV status") and stigma ("Didn't want anyone knowing I was HIV+"). The top reasons respondents identified as causing them to get back into HIV/AIDS-related medical care were "I was ready to deal with my HIV Status", " I was able to deal with other things I worried about/other problems in my life", and " I got sick and I needed care".

Connection to a case manager (to link to services or support), connection to another HIV+ person (to link to support), and someone to help cope with stress were the top services identified by respondents which would have helped in starting HIV-AIDS related medical care.

d. Describe *service barriers to HIV prevention and care services, including but not limited to:*

i. Social and structural barriers (e.g., poverty, cultural barriers, stigma, etc.)

The most frequent responses for not getting support services included lack of awareness ("Didn't know where to get services"), stigma ("Didn't want anyone knowing I was HIV+"), and lack of reliable transportation.

ii. Federal, state, or local legislative/policy barriers (e.g., the changing health care coverage, landscape, policies on HIV testing or lab reporting, etc.)

N/A

iii. Health department barriers (e.g., political landscape, staff capacity, etc);

The lack of HIV physicians in rural areas is an issue within the state. In 2012, the Division of HIV Prevention and Care began funding Telehealth as an innovative biomedical intervention in delivering care to patients diagnosed with the human immunodeficiency virus (HIV). The telehealth service was established to address the lack of HIV care in rural areas of the state. Telehealth allows health care providers to reach underserved populations of HIV positive individuals and increase access to care in rural areas without the need for extended travel. As of July 13, 2016, 14 telehealth sites are operational in the following counties throughout the state of Alabama.

iv. Program barriers (e.g., infrastructure capacity, access to data, data sharing, inadequate health information systems, availability of funding, etc.,

N/A

v. Service provider barriers. Discuss any stakeholder(s) that are not involved with planning for HIV services that need(s) to be involved in order to address gaps in planning for HIV services that need(s) to be involved in order to address gaps in components of HIV Prevention programming and/or along the HIV Continuum more effectively (e.g., lack of specialized resources or specialty care providers).

Providers that were not a part of the planning were dental staff. PLWHA identified a number of other HIV-related services that they needed, could not get or were not offered in their area. Services included:

- Specialist care
- Bi-lingual forms and services
- Support groups
- Services for migrant/undocumented persons
- Transportation
- Information on HIV services
- PrEP
- Access to medication
- Financial support
- Employment assistance
- Housing
- Health insurance
- Patient advocates
- Medical marijuana

vi. Client barriers (e.g., transportation, homelessness/housing instability, inability to navigate the system, poverty, stigma comorbid conditions, etc).

PLWHA identified a number of concerns that they had about getting care or treatment services in the future. Concerns included:

- Financial concerns
- Access to medications
- Transportation
- Insurance to cover specialist care
- Employment or economic assistance

- Stress
- Housing
- Cost of treatment, medication, etc.
- Continuation of care
- Bi-lingual forms and services
- Dental care
- Food
- Insurance and co-pays
- Medical and treatment adherence
- Wait times to see providers

E. Data: Access, Sources, and Systems
Data Integration Services Branch

- ***Confidentiality and Data Security***

  All prevention program data requirements adhere to the HIV Prevention Program Data Security and Confidentiality Guidelines, and the appropriate guidelines for CDC and HIPAA. Personnel are annually required to successfully complete on-line training for ADPH HIPAA Privacy and Security Awareness training. Strict adherences to established protocols protect the security and confidentiality of all HIV/AIDS data and documentation.

  Security and confidentiality signs are posted and visible at all locked entrances to the HIV/AIDS Division. Access to the Division requires an electronic access card. All visitors are required to sign-in at the reception desk, located directly in front of the main security access door and wear a security badge identifying them as a visitor. Visitors are escorted at all times until they sign out and leave the Division. All employees working in the building are required to wear a picture ID.

  All computers are equipped with security software that utilizes a system-password and user ID that locks the screen and keyboard when not in use. Employees are required to lock their computer screens if they leave their work area for any reason.

  As personnel permanently leave the department, access to databases are revoked.

- ***Data collection methods***
  HIV/AIDS data is submitted through a security portal established by Health Department IT personnel. Data is entered through a SQL server equipped with its own redundant security features. Alabama's HIV/AIDS Data Information System (HADIS) is used to submit test-level data to CDC through the Evaluation Web using an xml file. All data collected and/or obtained within the HIV/AIDS Division i.e., Patient Reengagement (PR), CTS, ADAP, eHARS, and Linkage Specialist are subject to sharing with any of the subordinate programs through generated files and SAS-programming. Statistical Analysis System (SAS) programs are used, for example, to differentiate HADIS "positives" from those persons previously reported through eHARS.

  Test results for STDs, viral hepatitis, and TB acquired during the initial medical evaluation can be linked to these various databases to provide an enhanced view of a client's HIV status. PR files are created and matched against the aforementioned databases to generate a list of clients to be tracked by the HIV Program Coordinators and/or Linkage Specialists as necessary for linkage into care, secondary education, and re-entry of clients lost to care.

- ***Data Monitoring and Evaluation***
  All data and its related outcomes are shared within the HIV/AIDS Division for provision into their grants, used in further data analysis, and in planning future HIV-related activities as part of our cross-program practice of data collection.

  Procedures, schedules, and forms have been established to determine if project or program is on track towards stated objectives and goals. Site visits are performed in addition to annual evaluations to review programmatic and operational elements of the program.

  Staff from Data Integration Services meets with all other program staff on a regular basis to report progress and provide technical assistance as necessary. Reasonable and realistic timelines have been established to monitor a project or program's progress and reporting requirements.

- ***Data Collection Goals***
  - ensuring that positive test results are reported to appropriate local or state surveillance and partner services programs, in accordance with applicable laws and regulations;
  - distinguishing newly diagnosed cases of HIV from previously diagnosed cases;
  - collecting and submitting test-level data in accordance with CDC National Monitoring and Evaluation and HRSA requirements;
  - using CDC software or other CDC-approved reporting system to submit test-level data to CDC;
  - collecting data to track other screening and testing services (e.g., syphilis, gonorrhea, chlamydial infection, hepatitis B or C, TB) and submitting the data to CDC;
  - managing program data, including assuring client confidentiality and adherence to policies and procedures for data security; and
  - reporting core performance indicators for HIV prevention activities to CDC ensuring that data collection, entry, management, submission;
  - Identify gaps in care and service delivery;
  - Utilization of CareWare to collect statewide data for performance measures and to generate outcome reports as required by HRSA and to monitor treatment surveys;
  - Monitor patient health care outcome; and
  - Monitor patient access to ADAP, Insurance services

SECTION II

Integrated HIV Prevention and Care Plan

Section II: Integrated HIV Prevention and Care Plan

A. Integrated HIV Prevention and Care Plan

NHAS Goal1: Reducing New HIV Infections

Local SMART Objective: By the end of 2021, various HPCG workgroups will educate MSM, adolescents, and Women on Men and Women Health Issues

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By October 2020:	ADPH ASO	Educate 100 people within 4 major cities of Alabama (Montgomery, Birmingham, Huntsville, Mobile) on how to communicate; negotiate for safer sex; use of PrEP	MSM ages 13-29 y/o	Number of people that can successfully put on a condom; Sign in sheet; and Risk reduction quiz
By December 2017	ADPH, Start Talking AL Advisory Committee, and on Camera Correspondent	Video Production	MSM 18-29 y/o	Monthly reports, number of social media hits
Annually	HIV Coordinators, ADPH staff, ASO/CBO, and Peer Linkage Specialist (PLS)	Presentations, Town Hall, Seminars	Adolescents 13 – 18 y/o	Quarterly reports
Annually	HPCG committee chair/co chair; ADPH senior staff	Bi-annual conference/meeting	HPCG ADPH Office of Women's Health	Annual minutes

NHAS Goal1: Reducing New HIV Infections

Local SMART Objective: By the end of 2021, various HPCG workgroups will educate MSM, adolescents, and Women on Men and Women Health Issues

Timeframe	**Responsible Parties**	**Activity**	**Target Population**	**Data Indicators**
By November 2017	Stakeholder & Engagement workgroup	Expand stakeholder knowledge and collaborate with consultants	Latino Representative	New Latino Members
By November 2021	Stakeholder & Engagement workgroup	Expand stakeholder knowledge and collaborate with consultants	Mental Health Substance Abuse Faith Based Domestic Violence LGBTQ Community	1st Quarter – Substance Abuse/Mental Health 2nd Quarter – Faith Based 3rd Quarter – Domestic Violence 4th Quarter - LGBTQ Representative
Annually	ADPH Area Coordinators along with ASO's, CBO's, and other funded agencies	Provide in-person HIV education to at least 400 persons	Employees of state agencies, CBO's, religious institutions, public and private schools/colleges, physicians' offices/health clinics, dental offices, and pharmacies	Sign-in sheets along with pre and post-workshop surveys will be used to track the number of program participants.

NHAS Goal1: Reducing New HIV Infections

Local SMART Objective: By the end of 2020, various HIV committees and divisions will educate the general population on trending co-infections in Alabama

Timeframe	**Responsible Parties**	**Activity**	**Target Population**	**Data Indicators**
October 1, 2017	ADPH Video Communication, HIV/STD Divisions, Hepatitis Program Coordinator, Start Talking Alabama, AETC & Gilead, CDC & HRSA, CRIS System, Target Center, The FOCUS Program, HPCG	Social Media Campaigns	Anyone ages 9 - 100	Patient/Provider Surveys & Assessments, Monitor hits and likes on Social Media pages, and check timeline
2017 – 2018	ADPH Surveillance	Current/continued Geo-trending of disease	Highest at risk	Disease prevalence data
2018 – 2019	ADPH Surveillance Research Institutions – UAB & Auburn University	USE of GIS technology: Increase mapping of disease incidence by zip code Identify disease clusters	Highest at risk and considering: Poverty, social economy, race, education, residency; access to appropriate healthcare	Disease prevalence and incidence data
2019 – 2020	ADPH Surveillance	Mixed methods: Quantitative & Qualitative data analysis Max QDA S/W & Nvivo App S/W	Highest at risk	Disease prevalence and incidence and morbidity/mortality

NHAS Goal2: Increasing Access to Care and Improving Health Outcomes for People Living with HIV
Local SMART Objective: By the end of 2021, the division will collaborate with select organizations to support a coordinated patient centered care for high risk negatives and people living with HIV to address challenges meeting basic needs.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
By December 2020	Start Talking Alabama (STA) Medical AIDS Outreach ASO's that use Telemedicine	Add telemedicine as a topic for STA campaign	LGBTQ	Number of users of the telemedicine program Use of evaluation to determine demographic factors Number of participants that remain in care
Annually	ASO/CBO State Funded Projects Communicable Disease Division	2 Testing Event Per Public Health Region	People 13-65; high risk negatives	Document number of participants
Monthly	ADPH, PLS, ASO CBO	Provide transportation for rural counties	Non Urban Rural Community; PLWHA	Evaluations
Annually	ADPH Senior Staff	Alabama Consumer Advisory Board Conference	ADPH Divisional Staff, Contractors, Consumers	Evaluation

NHAS Goal2: Increasing Access to Care and Improving Health Outcomes for People Living with HIV
Local SMART Objective: By the end of 2021, the division will collaborate with select organizations to support a coordinated patient centered care for high risk negatives and people living with HIV to address challenges meeting basic needs.

By the end of 2021	Stakeholder & Engagement Workgroup	Expand telemedicine to two rural health care settings	Medical Providers	Number of patients utilizing telemedicine
2017 – 2018	ADPH & Ryan White grantees	Report VL & CD4 – current/ongoing Patient Reengagement (coordinators, peer linkage specialist) uncover patients linked, but not established/engaged in care Create proof of Concept (PoC v1)	Patients not linked to care Patients lost to care	ADAP Rx's dispensed VL and CDs Number of patients linked & retained
2018 – 2019	ADPH & ASOs	Use PoC v1 – genesis for increased partnership Engagement Create expanded PoC v2: - using evidence from PoC v1	Patients not linked to care Patients/Clients lost to care	Reactive results Number linked & retained
2019 – 2020	ADPH & ID docs/CBOs	Use PoC v2 as genesis for improved relationships with ID docs and non-ASO/CBOs	Patients not linked to care Patients/clients lost to care TBD CBO client	VL & CD4 Reactive results # linked & retained

NHAS Goal2: Increasing access to care & improving health outcome for people living with HIV
Local SMART Objective: By April 1, 2018, select individuals and/or organizations will provide information and resources to strengthen delivery of services identified as a priority in the State of Alabama

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
April 1, 2018	ADPH Video Communication, HIV/STD Division, Hepatitis Program Coordinator, Start Talking AL, CDC & HRSA, CRIS System, Target Center, HPCG & Workgroups, AETC/Gilead, ASO's & CBO's, Peer Linkage Specialists & ACAB, UAB & Primary Care Sites	Train the Trainer Workshops (Addressing Hepatitis, Co-Infections & Cultural Sensitivity, Inc) On Site/Webcasts & Distance Learning, etc Lunch/Dinner & Meet (Meet & Eat) Sessions TBD by Agency and trainer/people that approve them	General Population, Substance Abuse Treatment, Mental Health, Nursing Homes, Assisted Living Centers, Mental Health, Educated & Non Educated, Hospital, Department of Corrections, Providers, Faith-Based Organizations	Patient/Provider Surveys & Assessments, ADPH HIV & STD Surveillance & Statistics
Annually	ADPH Area Coordinators along with ASO's, CBO's, and other funded agencies including FOCUS	Provide testing for at least 400 persons	Persons between the ages of 13 and 29 offered via non-traditional testing opportunities including but not limited to technical schools, career centers, jails, substance abuse clinics, community colleges, universities, domestic violence shelters, etc.	The number of tests completed along with required forms (i.e. serology forms) will be used to track the number of young persons tested.

NHAS Goal 3: Reducing HIV-Related Disparities and Health Inequities

Local SMART Objective: By the end of 2021, the HPCG workgroup will educate the public on access to HIV services and health disparities with the outcome of improving health outcomes.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
Ongoing from 2018 - 2021	ADPH Video Communication, HIV/STD Division, Hepatitis Program Coordinator, Start Talking AL, CDC & HRSA, CRIS System, Target Center, HPCG & Workgroups, AETC/Gilead, ASO's & CBO's, Peer Linkage Specialists & ACAB, UAB & Primary Care Sites	Measurable Overview of On-going Social Media Campaign, Train the Trainer and Lunch/Dinner & Meet (Meet & Eat) Sessions	Community & Collaborating Partners	Number of hits from social media pages Sign in sheets Number of trainings conducted
By November 2021	Stakeholder & Engagement workgroup; HPCG	Create social marketing campaign to promote the Alabama Insurance Assistance Program	Medical Providers General Public	Number of hits Completed print material
By November 2020	ADPH, UAB, Alabama Training Education Center (MAO), BAO	Educate physicians about the LGBTQ culture	Physicians, Direct Care Staff	Evaluate number of participants via registrations; evaluations

NHAS Goal 3: Reducing HIV-Related Disparities and Health Inequities

Local SMART Objective: By the end of 2021, the HPCG workgroup will educate the public on varying access to HIV services and health disparities with the goal of improving health outcomes.

Timeframe	Responsible Parties	Activity	Target Population	Data Indicators
Annually	HPCG Committee Chair/Co Chair; ADPH Senior Staff	Bi-annual conference or meeting	HPCG meeting; ADPH Office of Women's Health meeting; Oral Health meeting	Sign in sheets, Evaluations
Annually	HPCG Committee Chair/Co Chair; ADPH Senior Staff	Bi-annual conference or meeting	HPCG meeting; Alabama Dept. of Mental Health	Evaluations
Annually	ADPH Area Coordinators along with ASO's, CBO's, and other funded agencies including FOCUS	Provide at-large HIV prevention education via social media sites including YouTube and Facebook	Direct targets are persons between the ages of 13 and 29, though the videos and images will be accessible to people of all ages	The number of clicks and views will be used to determine the number of people who interact with the information/videos.
2017 – 2018	ADPH HPCH ad-hoc workgroup TBD (DCQC) D2C & RW/ASO/CBO: Social workers, case managers, linkage team HPCG ad-hoc Workgroup and STA Campaign	Identify/score patient's health literacy; review missed HCP appointments: homelessness, transportation, ancillary barriers Partner with the STA Campaign: add 'HIV & Health Literacy' as a vignette topic	Patients with the lowest education levels Patients who missed HCP appointments MSMoC: who viewed the STA Campaign's YouTube video vignettes	Client-reported information: focus groups (new FG surveys) Patients with improved retention % Reporting: RW grantees; ASOs/CBO; linkage teams # of hits of .rul (social media pages) visited

B. Collaborations, Partnerships, and Stakeholder Involvement

Collaboration among stakeholders is critical to maximizing resources and efficiencies in serving PLWH. As jurisdictions continue to develop high-quality, coordinated prevention and care and treatment for PLWH, collaboration will become even more important and will be paramount to providing services that fully address each component of the HIV care continuum.

a. Describe the specific contributions of stakeholders and key partners to the development of the plan.

A meeting was held with the ADPH HIV Quality Advisory Board. This board is made up of Subject Matter Experts (SME) from various Ryan White clinics within the state of Alabama. During this meeting, SME's were allowed to contribute to the design of the survey that would be more beneficial to the staff that works in the clinic. It was agreed upon that electronic survey's with several choices would be more effective than completing a paper form.

b. **Describe stakeholders and partners not involved in the planning process, but who are needed to more effectively improve outcomes along the HIV Care Continuum.**

In reviewing the findings from the needs assessments, it is evident that we need representation from the Latino population and the Alabama Dental Association. Although we have representation from Mental Health, participants were specific in their need for service for Substance Abuse Counseling. Within the five year plan, participants from those particular organizations will be invited to attend and possibly participate as a speaker or advisor to the HPCG meetings. Another division within the health department that was not apart of the planning process was the Alabama Department of Public Health's Prescription Drug Monitoring Program. The purpose of this division is to promote the public health and welfare by detecting diversion, abuse, and misuse of prescription medications classified as controlled substances under the Alabama Uniform Controlled Substances Act. According to the National Institute on Drug Abuse, drug abuse and addiction have been inextricably linked with HIV/AIDS since the beginning of the epidemic. The link has to do with heightened risk – both of contracting and transmitting HIV and of worsening its consequences.

c. Provide a letter of concurrence to the goals and objectives of the Integrated HIV Prevention and Care Plan for the co-chairs of the planning body and the health department representatives (*Appendix B).*

C. People Living with HIV (PLWH) and Community Engagement

Key principles of the Integrated HIV Prevention and Care Plan development process supported by CDC and HRSA are inclusion of at-risk groups and representation of people living with HIV (PLWH).
This process must include representatives of varying races and ethnicities, genders, sexual orientation, ages, and other characteristics reflecting the experiences and expertise of those impacted by HIV in the jurisdiction. CDC and HRSA recognize the essential role of PLWH, especially those who are consumers of RWHAP services, in planning and implementing programs that successfully serve targeted populations. CDC and HRSA believe that HIV planning processes involving the at-risk, affected, and infected community working together to develop specific strategies to enhance coordination, collaboration, and seamless access to HIV prevention, care, and treatment services are necessary to achieve the goals of the National HIV/AIDS Strategy.

The inclusion of community stakeholders in the development of the Integrated HIV Prevention and Care Plan helps ensure that HIV prevention and care activities are responsive to the needs in the service area. Community stakeholders include, but are not limited to, HIV service providers, PLWH, and at-risk groups.

a. **Describe how the people involved in developing the Integrated HIV Prevention and Care Plan are reflective of the epidemic in the jurisdiction. People involved in creating this plan included public health area state, community outreach coordinators affiliated with AIDS Service Organizations, Ryan White providers, Mental Health staff, and PLWH.** These individuals come in contact with PLWH/A on a regular basis. Several meetings were held where participants were able to provide input as to how information should be distributed based on the needs in particular areas. The HIV Prevention and Care Group (HPCG) workgroup committees worked in their groups to collectively determine what needs should be met within a 5 year time frame.

b. Describe the inclusion of PLWH contributed to the plan development.

The Division reached out to the Alabama Consumer Advisory Board. This board is made up of individuals living with HIV. The mission of the Alabama Consumer Advisory Board is to provide a representative voice for the HIV/AIDS infected/affected population within the state of Alabama and to work with the Alabama Department of Public Health and community based organizations on a range of strategies, policies, and programmatic issues affecting the lives of people with HIV/AIDS and those at risk. Focus groups were conducted and survey's were distributed within HIV support groups in selected public health areas as well as selected CBO's support groups which included Latino support groups within the Birmingham, Florence, and Montgomery, Alabama areas.

c. Describe the methods used to engage communities, people living with HIV, those at substantial risk of acquiring HIV infection and other impacted population groups to ensure that HIV prevention and care activities are responsive to their needs in the service area.

The HIV Prevention and Care Group for HIV Prevention in Alabama demonstrate the collaboration between the HIV Prevention and Care Group (HPCG) of Alabama and the Alabama Department of Public Health Division of HIV Prevention and Care. The ADPH HIV Prevention and Care Division use the HPCG to guide programs and allocate resources for HIV prevention throughout the state. This group is made up of health department staff from both the prevention and direct care side, ASO's, CSO's, and Peer Linkage Specialists. Meetings are held quarterly where updates are provided and new findings are shared regarding HIV prevention methods. The HPCG is designed to (1) strengthen coordination and integration of local HIV core and support services (2) improve linkages between service agencies and (3) link prevention and care. Ultimately, The HPCG is intended to expand the capacity of prevention and care services to implement high quality, scientifically-sound, culturally competent, scalable services that reach individuals at highest risk and those disproportionately affected. This group is the result of the commitment of diverse Alabamians to prevent the advancement of HIV infection. The primary goal of The HPCG is to provide HIV prevention and care in order to reduce new infections, increase access to care, and reduce health-related disparities in Alabama.

d. Describe how impacted communities are engaged in the planning process to provide critical insight into developing solutions to health problems to assure the availability of necessary resources.
During the HPCG meetings, members are divided into workgroups. Within those workgroups, discussions occur based on how to address the community and what activities can be implemented within to bring awareness and reduce new infections throughout the state. During the HPCG meeting, members are divided into workgroups. Each committee proposes an improvement process to address the needs and/or health issues. The analyses of what the needs of the community were are found in the Needs Assessment results. Next each committee will discuss the assessment of resources, determine how to respond and who or what individual should respond, and collaborating with ASO/CBO's to assess whether desired outcomes are being achieved. At the close of the meetings, each group will present what their plans are along with a completion date.

Section III: Monitoring and Improvement

Monitoring the Integrated HIV Prevention and Care Plan will assist grantees and planning bodies with identifying ways to measure progress toward goals and objectives, selecting strategies for collecting information; and analyzing information to inform decision-making strategies for collecting information; and analyzing information to inform decision-making and improve HIV prevention, care, and treatment efforts within the jurisdiction.

a. Describe the process for regularly updating planning bodies and stakeholders on the progress of plan implementation, soliciting feedback, and using the feedback from stakeholders for plan improvements.

The Alabama Department of Public Health (ADPH) Division of HIV Prevention and Care will convene regularly several planning bodies and stakeholders to inform them on the progress of the implementation of the Integrated HIV Prevention and Care Plan and solicit feedback that will be used for plan improvements. These groups include the HIV Prevention and Care Group (HPCG), AIDS Drug Assistance Program (ADAP)/Alabama Insurance Assistance Program (AIAP) Quality Meeting for Case Managers/Social Workers, and Alabama's Consumer Advisory Board (ACAB). Meetings with both the HPCG and ADAP/AIAP Quality Meeting are held face-to-face every quarter. The Alabama ACAB conducts their annual statewide meeting each year. A representative of the ADPH Division of HIV/AIDS Prevention and Care will be present at each of these meetings to provide an update on the progress of the plan's implementation, outcomes/achievements, and any challenges in implementation.

Updates to stakeholder groups will include an overview of the activities and interventions outlined above in Section II as well as the outcomes of these activities measured by the data indicators. Significant achievements made during the implementation of these activities will also be presented as well as their impact on the plan's SMART objectives and goals. A detailed report of the data indicators/metrics used to monitor the progress of the SMART objectives and goals will be available annually to stakeholder groups.

Stakeholders will also be informed on upcoming and ongoing activities and interventions being implemented. Stakeholders will be asked to provide feedback directly to the ADPH Division of HIV/AIDS Prevention and Care on these activities to ensure the strategies are appropriate in reaching the target population and align with the plan's SMART objectives and goals. Stakeholders will also play an important role in identifying resources needed to implement the activities outlined in the plan and may advise the ADPH on solutions to any anticipated challenges or barriers which may arise during implementation.

Feedback from key stakeholder will be reviewed by the ADPH following each of the meetings and will be used to make continuous plan improvements to ensure a coordinated response to address issues identified across the HIV Care Continuum and to insure services are maintained.

b. Describe the plan to monitor and evaluate implementation of the goals and SMART objectives from Section II: Integrated HIV Prevention and Care Plan.

The ADPH Division of HIV/AIDS Prevention and Care proposes to implement the following evidence-based strategies to monitor the performance and progress towards outcomes of the Integrated HIV Prevention and Care Plan. This evaluation plan is based upon well-documented evaluation techniques, as well as practice-based experiences of the ADPH. This will create a rigorous and meaningful evaluation process that will allow the ADPH to make decisions about plan implementation and to assess its overall impact on targeted indicators. The evaluation plan is based upon NHAS goals, SMART objectives, and key activities outlined above in Section II. While careful consideration has been given to the most appropriate and relevant evaluation plan, the ADPH anticipates collaboration with key stakeholders to refine and finalize methods that are cross-cutting and supportive of the overall goals and outcomes of the plan.

The purpose of this evaluation will be two fold. First, to initiate process evaluation as an ongoing check of the plan's implementation and performance of stated activities. Second, the evaluation will strive to determine if the objectives and goals of the plan are being achieved. Key outcome evaluation questions will be focused on determining what

difference the plan implementation has made, if needs of partners and stakeholder groups are being met (are we meeting needs?), and what difference the plan has made towards strengthening the HIV Care Continuum in Alabama.
Program Performance Evaluation: Process evaluation 1) will provide information on the extent to which the program is being implemented as planned (e.g., design, development, and delivery of activities; promotion and marketing efforts; working with stakeholder groups to gather feedback and implement needed changes), 2) will assess the level of interaction of stakeholder groups, and 3) will assess the level of resources or inputs (the collaborative efforts with state and local partners) and outputs (e.g. trainings, activities, collaborative projects). This evaluation will provide information needed to improve the plan and its implementation, identify any barriers to implementation, and will look at activity participation levels and satisfaction. Ultimately, the process evaluation will monitor:

- If programs are being implemented according to the work plan?
- What type, quantity, and quality of training, activities and services are being provided across the HIV Care Continuum and to whom?
- What are the outcomes of implementation?

Process and Performance Measures: In the table found in Section II. A., each key activity is derived from program goals and objectives and are linked with process measures that will verify progress for each output type (Data indicators). These will be used to gauge progress towards outcomes against outputs. Each of these process measures, plus those additional measures that will be determined by key program partners, will be linked to achievement of NHAS goals and objectives. Ultimately, the ADPH will document its progress towards program impacts and share this information with its stakeholder groups as defined in Section III. A.

c. **Describe the strategy to utilize surveillance and program data to assess and improve health outcomes along the HIV Care Continuum which will be used to impact the quality of the HIV service delivery system, including long-range planning**.

HIV surveillance data is collected through the Alabama Department of Public Health STD Division utilizing several sources including CTS, ADAP, eHARS, Linkage Specialists, and HADIS. Together, these sources provide a description of the burden of HIV in Alabama in terms of social-demographic, geographic, behavioral, and clinical characteristics of persons newly diagnosed with HIV, PLWH and persons at higher risk for infection. Initial data gathered used as a baseline to assess health outcomes along the HIV Care Continuum, monitor progress towards meeting the objectives and goals outline in the plan, and improve the quality of the HIV service delivery system. The ADPH Division of HIV Prevention and Care will continuously monitor surveillance and program data and make adjustments to the strategies and activities based on patterns and trends seen in epidemiological surveillance and program data. Several indicators monitored directly align with the objectives and goals stated in the plan.

These indicators will include:

- Alabama's HIV-prevalence (HIV-infected estimated)
- Number diagnosed with HIV infection
- Percentage of person linked to care after diagnosis
- Percentage of persons accessing care among those diagnosed with HIV
- Percentage of persons who had suppressed viral load among those diagnosed with HIV
- ADAP data on patterns of utilization of HIV services through ADAP, AIAP, and MEDCAP

The chart below shows the alignment of the activities proposed in Section II.A. with the measurements/data indicators collected by surveillance and program as well as the stage within the HIV Care Continuum the data element corresponds.

Activity	Data Indicators	HIV Care Continuum Stage
NHAS Goal 1: Reducing New HIV Infections		
Local SMART Objective 1: By the end of 2021, select HIV committees will educate MSM, adolescents, and Women on Men and Women Health Issues.		
Local SMART Objective 2: Local SMART Objective: By October 1, 2017 select HIV committees will educate the general population of co-infections.		
Current/continued Geo-trending of disease	Disease Prevalence	Diagnosed with HIV
USE of GIS technology: Increase mapping of disease incidence by zip code; identify disease clusters	Disease Prevalence & Incidence	Diagnosed with HIV
Mixed methods: Quantitative & Qualitative data analysis Max QDA S/W & Nvivo App S/W	Disease Prevalence, Incidence & Morbidity and Mortality	Diagnosed with HIV
NHAS Goal 2: Increasing Access to Care and Improving Health Outcomes for People Living with HIV		
Local SMART Objective 3: By the end of 2021, the division will collaborate with select organizations to support a coordinated patient centered care for high risk negatives and people living with HIV to address challenges meeting basic needs.		
Report VL & CD4 – current/ongoing Patient Reengagement data (coordinators, peer linkage specialist) uncover patients linked, but not established/engaged in care Create proof of Concept (PoC v1)	ADAP Rx's dispensed VL and CDs Number of patients linked & retained	Linked with Care Prescribed Antiretroviral Therapy Achieved Viral Suppression
Use PoC v1 – genesis for increased partnership Engagement Create expanded PoC v2: - using evidence from PoC v1	Reactive results Number linked & retained	Linked with Care Prescribed Antiretroviral Therapy Achieved Viral Suppression
Use PoC v2 as genesis for improved relationships with ID docs and non-ASO/CBOs	VL & CD4 Reactive results # linked & retained	Linked with Care Prescribed Antiretroviral Therapy Achieved Viral Suppression
Local SMART Objective 4: By April 1, 2018, select individuals and/or organizations will provide information and resources to strengthen delivery of services identified as a priority in the State of Alabama.		
Train the Trainer Workshops, On Site/Webcasts & Distance Learning, Lunch/Dinner & Meet (Meet & Eat) Sessions	Patient/Provider Surveys & Assessments, ADPH HIV & STD Surveillance & Statistics	Diagnosed with HIV Linked with Care Prescribed Antiretroviral Therapy Achieved Viral Suppression
Provide testing for at least 400 persons	The number of tests completed along with required forms (i.e. serology forms) will be used to track the number of young	Diagnosed with HIV

	persons tested.	
NHAS Goal 3: Reducing HIV-Related Disparities and Health Inequities		
Local SMART Objective 5: By the end of 2021, the HPCG workgroup will educate the public on varying access to HIV services and health disparities with the goal of improving health outcomes.		
Identify/score patient's health literacy; review missed HCP appointments: homelessness, transportation, ancillary barriers Partner with the STA Campaign: add 'HIV & Health Literacy' as a vignette topic	Client-reported information: focus groups (new FG surveys) Patients with improved retention % Reporting: RW grantees; ASOs/CBO; linkage teams # of hits of (social media pages) visited	Linked with Care